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# A RETROSPECT OF SURGERY.

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# A QUARTERLY RETROSPECT OF SURGERY.

PREPARED BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

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*Resection of the Stomach and Intestines.*—Prof. Nussbaum of Munich says that it is not so very long since a suggestion, made by the surgeon, Carl Theodor Sierren, to remove cancer of the stomach, was looked upon as a "beautiful dream of youth." However, Prof. Czerny demonstrated practically five years ago that a person can continue to live after the whole stomach has been removed; he cut out the entire stomach and stitched the œsophagus to the intestine, the digestive functions were carried on very well, and the patient had good health. Three cases of resection of the intestine have lately been recorded by Czerny. In two, a coil of intestine, which had become gangrenous as a strangulated hernia, was removed; and in the third, a malignant tumour of the colon was excised. In one of the first two instances the patient recovered without fever or reaction of any sort; in the second, the patient died during the operation in a fit of vomiting. In the third case, a woman, aged 47, had a large tumour of the transverse colon, which was attached to a coil of the sigmoid flexure. Part of the sigmoid was first resected and the ends brought together with thirty-three sutures, and then a wedge-shaped piece of the meso-colon was removed and ligatured. A drainage-tube was inserted, and the wound in the abdomen closed by deep and superficial sutures. The patient recovered, and was living half a year after the operation. Antiseptic dressings were used.—(*Berlin Klin. Woch.* and *Dublin Journal of Medical Science*, July, 1881.)

A still more remarkable case of resection of the intestine, which was seccessful, has been reported by Koeberlé of Strasburg (*Gazette Hebdom.*, 1881), and in this case the operation was not done antiseptically. A young lady, aged 22, had suffered frequently from colic, and in October, 1880, symptoms of intestinal strangulation occurred twice in fifteen days. Since then she had suffered from persistent colic, which could hardly be subdued by hypodermic injections of morphia. Gastrotomy was performed on November 27th. Four strictures were found involving six and a-half feet of small intestine, the slighest having a diameter of one-sixth of an inch. He removed *six and a-half feet* of intestine, and tied twelve vessels. The ligatures from the two free ends of the intestine were tied together and attached to the fibrous tissue of the linea alba through a suture, which retained them in contact with the peritoneum at the inferior angle of the abdominal incision. The ligatures of the mesentery were brought out at the inferior angle also, and were retained, together with the sutures of the intestine, in a fixed position. The superior part of the wound was partially closed. Enterotomy was performed on the third day; the ligatures and sloughs separated on from the 12th to the 13th day; the first alvine discharge took place on the 20th day. On the 25th day, communication with the intestine was almost closed, and six weeks after the operation the external wound was also closed and healed. According to latest accounts the patient feels quite well, and suffers no gastric disturbance.

The series of successful operations for *Resection of the Stomach* by Prof. Billroth and his assistant is perhaps the most remarkable advance which has of late been made in operative surgery, not even excepting the successful cases of excision of the kidney which are now not infrequently reported in the various medical journals. The fourth patient on whom Prof. Billroth performed the operation of resection of the stomach lived for several months, sufficiently long to establish the occasional advisability of undertaking this operation. An additional interest attaches itself to this patient from the fact that an autopsy was obtained (*Wiener Medizinische Wochenschrift*, No. 22.) Dr. Zemann, who directed

the post-mortem, found that death had resulted from metastatic deposits of cancer throughout the entire peritoneum, duodenum and jejunum. The stomach remained quite natural in form, and no one would have guessed that fourteen centimetres had been removed from it. The woman had not suffered from any digestive troubles, but had taken and retained her food. At the point of junction of the duodenum with the lesser curvature of the stomach there was no stenosis, the thumb being easily passed through the orifice. The union was perfect in all respects, so that hardly a scar could be perceived along the line of suture.

*Removal of the Spleen.*—This old operation, which was formerly recommended for the cure of melancholy, has, from time to time, been performed, and quite lately a prominent surgeon of Detroit has incurred a great deal of obloquy by removing this organ for hypertrophy. Of course the operation was unsuccessful. It seems to be much more dangerous to remove it in human beings than in animals; in dogs it has been frequently removed without bad results. The *Gaz. Med. Lombardia* describes a recent operation as follows: "Dr. Chiarleoni performed, at the Casa di Salute, Milan, March 26th, splenectomy on a female patient suffering from paludal cachexia, in the presence of a large number of distinguished colleagues. The operation, executed with great method and freedom, was very laborious, owing to the extensive and strong adhesions of the spleen to the left edge of the liver and the diaphragm. It was impossible to tie all these adhesions before removing them, and a very considerable hæmorrhage from the surface ensued; and this, conjoined with a certain amount of nervous exhaustion, caused the woman's death a few hours after the termination of the operation. As far as we are aware, so bold an operation has not been executed in Italy except on one occasion by Drs. Zaccharelli and Fioravanti, at Naples, in 1549." (*Med. Times and Gazette.*) The propriety of such heroic operations is, to say the least, questionable, notwithstanding the "great method and freedom" with which they are "executed." Whilst on the subject of "heroic operations," I shall quote the following: "*Surprising Surgery.*—Those who are interested in the advance of operative surgery

will not fail to be struck by some of the recommendations of German surgeons. During the proceedings of a congress held in April last, Dr. Zeller of Berlin suggested that, as a prophylactic measure in operations about the mouth and throat, the trachea should be divided about the 3rd and 4th rings. The lower end should be fastened at one corner of the transverse incision in the skin, the upper end at the other corner, so that the discharges from the operation wound may be prevented from obtaining access to the lungs. After the operation, the two ends of the divided trachea may be brought together again. That this operation would be attended with danger to the patient probably few persons would be prepared to deny—perhaps with a danger as great, or greater, than that it is intended to guard against,—and we must congratulate Dr. Zeller's dogs on having so well recovered from it. But in ingenuity of suggestion and in boldness of performance, this operation of Dr. Zeller's cannot compare with that of Dr. Gluck (Berlin), for this gentleman hopes that, sooner or later, the complete removal of the bladder and prostate—which he has carried out successfully in dogs—may be introduced into surgery. It may, says Dr. Gluck, be performed on men without opening the peritoneum, and the ureters should be fastened to the abdominal wall; for in dogs, the sewing of them into the rectum has not well been borne, and the attachment of them to the cut urethra can scarcely be recommended. We shall watch with interest for Dr. Gluck's account of the first operation of this kind performed upon the human subject. We fear that not many even of our most brilliant surgeons will care much to perform it, and not many patients will care to submit to it when the most favourable result which can be hoped for has been explained to them."—*Beilage Zum Centralblatt für Chirurgie*; quoted in *Practitioner*, July, 1881.

*Transplantation of Bone.*—Dr. MacEwen, well known for the great success he has had with his osteotomies, presented a paper to the Royal Society on a case in which he had successfully transplanted bone (*Lancet*, May 28). The patient was a child 4 years of age, who had lost two-thirds of the shaft of the humerus by necrosis fifteen months previously, and in whom no osseous

repair had occurred. The limb was of course useless. Dr. MacEwen proceeded first to make a groove in the soft tissues in the position of the bone, relying for this on his anatomical knowledge, and then placed in this groove small fragments of wedges of bone removed from other patients for curved tibiæ. The result has been that a good new bone has been formed, the new portion has united firmly to the upper epiphysis and lower part of original shaft, and the bone is only half-an-inch shorter than its fellow. The operations were performed with strict antiseptic precautions. This is the first time this operation has been performed in a scientific manner. The necessity for the operation is fortunately rare, as nature generally is so skilful in the repair of bone that the interference of the surgeon is seldom needed. It is strange that before Dr. MacEwen had made his case public, Mr. McNamara, of the Westminster Hospital, intimated to his class his intention of transplanting bone to supply a deficiency in the tibia of a child. This he has since done, using part of an amputated metatarsus in the transplantation.

This operation resembles greatly that which is said to have been in vogue amongst the Bulgarian peasants for years, viz., when a man has had a compound fracture of the humerus, tibia or other long bone, with considerable loss of substance, they cut out a piece of bone from a living sheep or cow and transplant it into the human subject. Travellers say the results are marvellous, and that the patient almost invariably recovers without any shortening. The transplantation of teeth is now an established operation in dentistry.

*Treatment of Hydrocele.*—Many new methods for the treatment and radical cure of hydrocele are being continually brought before the profession. According to most authorities, only a very small percentage of the cases treated by the injection of iodine fail to be cured, and after all, the treatment by this method on the whole gives the best results. In obstinate cases, or where the risk of injection of iodine is too great, other means must be resorted to. Dr. Ogilvie Wills, in the *Edinburgh Med. Journal* for July, relates a case of hydrocele of the cord, where, from the age and infirmity of the patient, he was unwilling to risk

the iodine treatment, cure was effected by the introduction of catgut drainage, under full Listerian precautions; in another case of vaginal hydrocele, this method completely failed. His favourite treatment, when not contraindicated, is the injection of iodine according to Mr. Syme's plan, and he has rarely seen it fail. When considerable inflammatory reaction ensues, Dr. Wills has found much relief to accrue from the application of a tobacco poultice, made by boiling an ounce of cut tobacco with a sufficiency of water to make a cataplasm, and then adding linseed until a proper consistency is reached.

Mr. Lister has lately had some successful cases treated by Volkmann's "Schnitt" method—transfixing the skin and sac with two needles and cutting into the sac between them, then stitching the cut edge of sac to cut edge of skin, and applying salicylic jute dressings under the spray. This, without the Listerian precautions, is a modification of an old method, as is also the insertion of setons and drainage-tubes, and it is hardly fair for gentlemen who merely add the Listerian method, to claim these methods as something quite new. The favourite method in Bellevue Hospital, New York, of treating hydrocele in children is by scarifying the inside of the sac. In my hands this has not been at all successful. Mr. S. Osborn lately read before the Medical Society of London the notes of two cases of hydrocele treated successfully by a single tapping, with the subsequent use of the galvano-suspension bandage. The first case was a hydrocele of the tunica vaginalis, which had been present for seven or eight years; and the second was a case of double encysted hydrocele, present for six years—ages 70 and 63 respectively. The galvanism was believed not only to cause contraction of the muscular fibres of the scrotum, but to impart a healthy action to the serous sac, aiding absorption. Mr. Osborn recommended a trial of this bandage in other diseases of the testicle, such as varicocele and neuralgia of the testis.

*Subcutaneous Ligature of Varix and Varicocele.*—Mr. John Duncan of Edinburgh, in a lecture published in the *British Medical Journal*, July 9th, advocates the subcutaneous catgut ligature for the above affections. He holds that it is singularly

easy of application, free from risk and very certain in its results. This is certainly high praise and if these assertions can be substantiated, surgeons will be inclined to perform the operation for radical cure of varix or varicocele much more frequently than heretofore. Most surgeons in the treatment of varicocele have felt it unnecessary and inadvisable to resort to severe measures and have contented themselves with palliative ones, such as suspension, truss, cold douche, etc. Sir James Paget says, "the cases in which varicocele is more than a trivial affair are very few, and in these few it is not such as the sexual hypochondriacs imagine," again, "varicocele is troublesome because of the sense of weight and aching which sometimes, though not always attends it, and in some cases the veins are apt to become inflamed or very sensitive. But this, I believe, is the widest limit of the harm that varicocele ever does." Even after a successful operation the depressed mental condition often continues. To return to Mr. Duncan's operation, from which I fear I have rather strayed. His mode of procedure is as follows: "The veins are carefully separated by the fingers from the artery and vas deferens, and a needle armed with catgut is thrust through at the point of separation; it is again introduced at the orifice of emergence, made to pass between the veins and the skin and finally brought out at the original entrance. The two ends are then firmly knotted, with as much force as strong catgut will bear, and cut short. By traction on the loose skin of the scrotum, the knot is made entirely to disappear, and the punctures are covered with salicylic wool saturated with collodion. The same manœuvre is repeated at the distance of an inch or a little more. The effect is the formation of a hard lump of cagulum between the ligatures, at first slightly tender, but which soon becomes perfectly callous. Mr. Duncan has performed this operation six times with complete success.

He treats varix of the leg in the same way, but does not advise an early operation. He first tries the elastic stocking, even in advanced cases, but when solid œdema and eczema and ulceration cannot thus be kept in check, or perpetually recur,

he advises the subcutaneous ligature as being the safest and surest operation. He has had eight successful cases.

*So-called Rupture of the Internal Lateral Ligament of Knee Joint.*—In a thesis submitted for graduation at the College of Physicians and Surgeons, New York, and published in the *New York Medical Journal* for June, 1881, Dr. Charles A. Jersey questions the existence of the condition known under the above name, and expresses his opinion, on the strength of clinical observations and experiments on the cadaver (the latter having been performed in the prosectors room at the College under the direction of Dr. Wm. T. Bull), that the injury in question really consists in a fracture of the tuberosity, into which the ligament is inserted. His conclusions are as follows: 1. Many cases of so-called rupture of the internal lateral ligament of the knee joint are, in reality, cases of fracture of the internal tuberosity of the condyle. 2. Many of the more severe sprains are fractures of the tuberosity. 3. The absence of bony crepitus is no certain sign of non-existence of fracture at this part. 4. The diagnosis rests on the extreme lateral motion, the severity of the pain on manipulation, the localized pain always found at a certain point, and the length of time required for complete recovery.

*Tracheotomy.*—Dr. Foulis of Glasgow, well known for his successful case of extirpation of the larynx, says that the tubes generally made for children are too large, and that, as a rule, when used in very young children, completely fill the trachea, and if left in for any length of time, might cause erosion. Dr. Foulis employs five tubes; they are as follows: below 18 months, diameter, 4 mm.; 18 months to $2\frac{1}{2}$ years, 6 mm.; $2\frac{1}{2}$ to 10 years, 8 mm.; 10 to 20 years, 10 mm.; largest size, 12 mm. As to the point for opening the windpipe, he, contrary to the rules generally given, recommends that the incision should be made through the isthmus of the thyroid, in the middle line, where it is, he says, as destitute of blood-vessels as the middle line of the tongue or perineum. He says the high operation requires, especially in children, the dislodgement of the isthmus or division of the cricoid. If a tube is to be worn, it is better not to have the cricoid cut, for its elastic spring keeps up a con-

tinual pressure on the tube, leading slowly to irritation and, it may be, perichondritis. In the after treatment, he disapproves of the use of steam.—(*Glasgow Medical Journal*, Feb., 1881.)

Mr. Golding Bird (*Lancet*, March 12th, 1881,) holds that it is improper to introduce the tracheotomy tube immediately after the trachea has been opened. He says no tube should be introduced until the trachea has been cleansed, as far as possible, from all foreign bodies, as membrane, blood-clots, &c., but that other means should be adopted to keep the tracheal wound open. He has acted on this rule in his last eight cases, employing a German nose speculum, the blades of the instrument being inserted into the tracheal wound and then screwed open. He has improved upon this, and now uses his instrument instead of tracheotomy tubes. Mr. Golding Bird remarks that under the old method the greatest anxiety is felt lest the tube should become blocked, and constant cleansing with feathers, &c., has to be carried out at frequent intervals; that the foreign matters can scarcely be expelled *via* the glottis, while the chances of their finding their way out through a rigid bent tube, the end of which hangs freely in the trachea, are very remote. He therefore advises the use of some such method as he has made use of, as being safer, surer, and more rational.

*Tubeless Tracheotomy.*—Dr. Alfred C. Post of New York, in the *Annals of Anatomy and Surgery* for April, in a short paper, gives his experience of tracheotomy without tubes, according to the method suggested by Dr. H. A. Martin of Boston. He has had two cases; in each, the operation was performed as a preliminary measure to facilitate the continued administration of anæsthetics, and to guard against the entrance of blood into the bronchial tubes in protracted and bloody operations involving the nasal and buccal cavities. In each case the practical result was in the highest degree satisfactory. The opening into the trachea was larger and more direct than in the usual operation, not liable to be clogged with mucus, and unattended by the irritation which is often occasioned by the presence of the tube. He is fully persuaded that the use of the tracheal tube is a

source of irritation, and that it is very desirable to dispense with it if possible.

There are objections to both these latter methods. In Dr. Golding Bird's, the constant presence of an instrument pressing against the sides of the trachea would be a continual source of irritation, and might possibly give rise to erosion. What Dr. Bird says with regard to the too early insertion of the tube is sound, and worth making a note of. Dr. Martin's tubeless tracheotomy may be useful as a prophylactic measure in operations about the throat and mouth, but where a permanent opening is needed, there would be great difficulty in keeping it free from exuberant granulations and preventing too early closure. Dr. Zeller of Berlin has, at the congress of German surgeons lately, strongly advocated this operation as a prophylactic measure, as I have noticed above under the heading of "Surprising Surgery."

*Thermo-Cautery in Tracheotomy.*—Dr. Jules Bœkel, who advocates this method, gives an epitome of twenty-four cases, in which he thus operated in two years. Previously he had published seven cases. In these cases he employed the thermo-cautery to divide all the tissues down to the trachea, generally using it at a white heat, but the trachea he opened with a bistoury for fear of subsequent contraction, a fear which he has since learnt to be hypothetical. He summarises thus: To-day that I have acquired in the manipulation of this instrument a greater experience, I can affirm its superiority . . . The fear of consecutive narrowing of the trachea after the use of the thermo-cautery, enters into the domain of hypothesis." There is rarely, he says, fear of primary hemorrhage and he has never experienced any trouble from secondary hemorrhage. In twenty-four cases there was complete absence of hemorrhage. (*Gaz. Méd. de Strasbourg*, 1880, in *Dublin Med. Journal*, Aug., 1881).

*The use of Antiseptics in Surgery to be made compulsory by legal enactment.*—Prof. Nussbaum has of late been strenuously advocating that a law should be passed, making the employment of antiseptics in surgery compulsory or rather that the neglect of their employment should be accounted a criminal

act. He states that to his personal knowledge fatal cases are constantly occurring, which could be prevented by the use of even the simplest forms of antiseptics. Now this is strong language and Prof. Nussbaum must look through very green spectacles, in an atmosphere rendered dim by carbolized spray. His experience surely has been a very sad one and surgery in Germany must be at a very low ebb indeed. He out-Lister's Lister and must believe we have at last reached perfection in the treatment of wounds. Such legislation would effectually put a stop to any further improvements in the treatment of wounds and an effective bar would be placed on all advance in surgery. It would be a return to the despotism and stagnation of the Middle Ages. This would be only the thin edge of the wedge, soon the State would make it compulsory to treat fevers by cold baths, to cut off limbs by the galvanic wire (under the spray of course), to employ internal urethrotomy in every case of gleet and many other methods might be enforced, which will readily suggest themselves to my readers. Prof. Nussbaum has been considerably abused for his extreme views and German surgeons hold that the State has no right to enforce the use of any particular method, but, that as long as the surgeon has to bear the responsibility, he must be left free to choose which form of treatment he shall use. It is a pity that the antiseptic system, which has done so much for modern surgery should be thrown into disrepute by the over zeal of its advocates. Prof. Nussbaum after all his tirade would commence his legislation in a very mild manner. There is nothing very objectionable in the following more than the principle involved. "Any person summoned to treat an accidental case or wound, must no longer close it up with charpie and adhesive plaster, nor examine or disturb it with a finger which has not been disinfected; but, after the surgeon has washed his hands and also the wound with some disinfectant (for which purpose a five per cent. solution of carbolic acid seems to be the most convenient), the wound must be thoroughly protected, with an antiseptic dressing. Such dressing may consist of carbolic jute or wadding, chloride of zinc wadding, or some other well known antiseptic material,"

Such a law he is convinced, would save in his own city alone, the lives of dozens of wounded people and deliver hundreds from a tedious and dangerous suppurative process. Prof. Volkmann, at the recent International Medical Congress in London, delivered a most eloquent address on the advantages of antiseptic surgery or rather Listerism, which has done so much for modern German Surgery. Previous to its introduction the German Hospitals were regarded as *pest houses*, and Listerism has certainly contended successfully against the horrible results of dirt and wound contagion, which were so common a few years ago in Continental hospitals. This great change affords the key to Prof. Nussbaum's vigorous advocacy of compulsory antisepticism. The *Lancet* (Aug. 13, 1881) remarks, that "our admiration for the change effected is only equalled by our horror at the previous condition."

*Early Diagnosis of Hip-Joint Disease.*—Mr. John H. Morgan, in Vol. X. St. George's Hospital Reports, says that among a very large number of patients that are brought to the Hospital for Sick Children on account of lameness, the proportion in which it is due to morbus coxæ, is very considerable. The lameness of morbus coxæ is peculiar. The action of the joint itself is very limited, so that in progression there is a tendency for the pelvis of that side to move, and for the sacro-iliac articulation to take on the part of the more or less fixed hip-joint. Often in hip-joint disease the lameness is hardly perceptible after rest, and only becomes evident when the joint is over-worked and possibly inflamed, and thus the lameness varies in the same patient under different conditions. In congenital dislocation of the hip it is otherwise; the lameness is constant, and the head of the bone in its new position freely movable. (In rheumatism, the lameness is more at first, and wears off after exercise.) The best method of examination is by laying the child naked on a couch, and first grasping the sound limb a little below the knee, and flexing the leg upon the thigh, bend the femur on the pelvis until the thigh touches the abdomen; extension should then be made to the full, and the head of the bone rotated in the acetabulum and made to perform all the movements the joint is capable of.

This gives confidence to the patient and affords a standard of comparison to the surgeon. If the same course be pursued with the affected limb, it will be found that a point is reached at which further movement in some direction is impossible, and it is checked by firm muscular action; and any attempt at further movement causes the joint to be fixed and the pelvis to be carried in the direction in which the force is applied. This locking of the joint is a certain evidence of disease, one that is never absent and rarely to be mistaken. Vernenil has stated that he has never come across any case of this disease in which abduction of the thigh was not painful; and Mr. Morgan has found no exception to this rule, though he has carefully sought for it. Extreme extension is next to abduction, the movement in which this fixity of the joint is most frequently found. Fixity of the joint due to rheumatism is sometimes seen in children; but this affection is rare in young children, and in them there is no shortening or wasting of the limb, or flattening of the buttock; all the movements of the joint, except flexion, can usually be performed without pain, and there is no pain on pressure over the trochanter. Chronic rheumatic arthritis occurs only in the elderly, so may be dismissed without further remark. Mr. Morgan states that there is one most important disease which, in an early stage, gives rise to all the appearances which have been above described, namely, disease of the lumbar vertebræ, which, by implicating the psoas, causes it to remain in permanent contraction, and thus to render the femur flexed and somewhat adducted on the pelvis. This contraction may be overcome by manipulation under an anæsthetic (though it is by no means advisable to do so): as soon as the influence of the anæsthetic has passed away, the former condition will be regained. Wasting of the muscles of the limb and gluteal region is a feature which is constantly present at very early periods in hip-joint disease. This wasting is, as Sir James Paget has pointed out, far in excess of that which would result from disease of the muscles alone, and to this wasting he aptly gives the name of "reflex atrophy," and he says "it depends on disordered nervous influence, and seems proportionate to the coincident pain, as if it were due to the disturbance of

some nerve centre irritated by the painful state of the sensitive nerve fibres."

This wasting of the muscles forms a valuable aid towards the detection of disease in its early stage; and when it is not due to any central cause, as the condition of the cord which exists in infantile paralysis, is not likely to be symptomatic of any other disease.

In long standing cases of hip joint disease there is observed a shortening of the limb, which is not due to any displacement of the head of the bone or actual shortening of the limb, but to the result of an altered position of the pelvis, which on the affected side is raised to a higher level than that of the opposite side. This Mr. Morgan believes is due to the constant contraction of the iliac portion of the erector spinæ and quadratus lumborum muscles, in obedience to reflex nerve irritation.

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# QUARTERLY RETROSPECT OF SURGERY.

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[This quarterly retrospect I intend to devote almost entirely to a consideration of the proceedings of the Surgical Section at the late *International Medical Congress* held in London, Aug., 1881.]

## SURGERY AT THE INTERNATIONAL CONGRESS.

*Excision of the Kidney.*—Several important papers were read on the above subject. Prof. Czerny of Heidelberg, in his paper, remarked that extirpation of the kidney is indicated in cases of wound of the kidney, floating kidney, pyonephrosis, calculous pyelitis, cysts of the kidney, and hydronephrosis, tumours, and fistulæ communicating with the ureter, as soon as the life of the individual is endangered and other methods of treatment prove ineffectual, provided that the other kidney is sound, when the kidney is fixed, or nearly so, he prefers operation by means of the lumbar incision; but for movable kidney he prefers abdominal section. He thinks, however, that the lumbar incision is the safer of the two plans, and, therefore, is worthy of further development. Prof. Czerny thinks it safer to ligature the pedicle and cut it short, adopting antiseptic precautions. In cases of fixed hydronephrosis, empyema of the pelvis of the kidney, and echinococcus of the kidney, the best plan of treatment is, he considers, incision of the cyst and stitching its margin to the skin. He thinks the plan of catheterizing the ureters of women and constricting the ureters of men, in order to con-

firm the diagnosis of disease affecting one kidney only, has not been sufficiently practised.

Mr. W. Morrant Baker, of St. Bartholomew's Hospital, read a paper on "The Diseased conditions of the Kidney which admit of Surgical Treatment." This paper was illustrated by three cases. The first case was that of a girl 7 years old. She had pyelitus, which had followed an attack of hæmaturia. A fluctuating tumour was found in the region of the right kidney. This was incised and a drainage tube inserted, but little improvement followed, and the kidney was afterwards removed. Three months after the wound had nearly healed and the child's general health had greatly improved. The second case was that of a lad 16 years old, admitted into hospital on account of a large fluctuating tumour in the left renal region, recurrent attacks of pain and fever, followed by the appearance of large quantities of pus in the urine. Nephrotomy was performed through a lumbar incision and thirty ounces of pale, purulent urine were evacuated from an enormously dilated kidney. A drainage tube was inserted, and two months after the patient had gained flesh and strength and had suffered no pain. Drainage is still maintained. The third case was that of a feeble woman, aged 43. She had a swelling in the right renal region, and a considerable amount of pus was always present in the urine. The swelling was punctured and 8 ounces of pus drawn off; three weeks after the tumour was explored through a lumbar incision, and was found to consist of a sacculated kidney containing a large branched calculus. The calculus was dislodged with considerable difficulty, and there was considerable hæmorrhage. The patient was much collapsed, never rallied, and died three days after the operation.

Mr. Arthur E. Barker read a paper "On some points connected with Operations on the Kidney." He only treated of questions in connection with operations on the kidney for calculous disease. He divides cases into two groups: (*a*) Early calculous disease, with little or no disorganization of the kidney; (*b*) Stone, with extensive damage to renal tissue and more or less implication of perinephritic structures. He then points out that stone may be, and has been, diagnosed in the kidney very early; also,

that it can be safely removed at this time by simple nephrotomy or by nephrectomy, with excellent results, compared with operations undertaken at a later stage. [The difficulty of early diagnosis is very great, and Mr. John Duncan, surgeon to the Edinburgh Infirmary, in the *Edinburgh Medical Journal* for July, has pointed out that the needle exploration is not always infallible, as in a case of his, a necrosed transverse process exactly simulated the feel of a calculus in the kidney. Mr. Barker claims to have been the first who successfully sounded for stone in the kidney by passing a needle through the loin to the kidney. It is about a year since Mr. Henry Morris read his paper on Nephro-lithotomy before the Medical Society of London. He was the first who successfully extracted a stone from a kidney by means of incision where there was no previous suppuration or sinus to guide the operator. Peters, a German surgeon, had previously, in a case of renal calculus, passed a trocar and canula into the kidney, striking the stone. Being unwilling to undertake the risk of incising the kidney, he left the canula *in situ*, dilated the wound afterwards with tents, passed in a lithotrite, and crushed the stone before removing it. Mr. Barker had previously also operated in a case of renal calculus, but the stone being branched, and difficult of removal, the patient died. He, previous to operating, sounded the stone through the loin by means of a needle, and so settled the diagnosis, which rested between renal calculus and tubercular disease. Marchetti, in the 17th century, successfully removed a renal calculus from the English Consul, Hobson, but the operation never found favour with the profession, and Charles Bernard, in 1696, says writers "ought not to have so magisterially exploded the operation." The kidney has been frequently exposed for suspected stone, and nearly every time without fatal result. The operation was generally undertaken to relieve severe neuralgia, supposed to be caused by stone. The neuralgia in every case was relieved, and in some permanently. One boy in Guy's Hospital was not only cut for stone in the kidney, but for stone in the bladder also, no stone being found in either situation. He recovered, and the neuralgic pains were temporarily relieved.]

At the Congress, Messrs. Barwell and Clement Lucas each reported a successful case of nephrectomy. In Mr. Barwell's case, the kidney was removed for nephrolithiasis, the stone having been previously detected through a sinus, and he had failed to remove it by simple incision. In Mr. Clement Lucas' case, the kidney was excised for pyelitis, in a man aged 36. The lumbar incision was used. The man is now in good health, free from pain, has gained two stone, and is able to work.

In the discussion which followed the reading of the papers, Dr. Martin stated that he had seven times removed a painful floating kidney, and once a malignant tumour of the kidney, with five recoveries in all. Three methods of removal were described: The lumbar, intra-peritoneal, and the abdominal extra-peritoneal. Dr. Martin stated that in the removal of the kidney from the front of the belly, the peritoneum falls together so completely that it does not require stitching. The precise diagnosis of the conditions of the kidney which justifies removal is a point on which more light is required.

*Causes of Failure in obtaining Primary Union in Operation-Wounds, and on the methods of treatment best calculated to secure it.*—This was perhaps the most interesting and important subject which engaged the attention of the Surgical section of the International Medical Congress. Mr. Sampson Gamgee of Birmingham, in his paper, said that operation-wounds heal, as a rule, directly and without complications when their surfaces and margins are placed and maintained in apposition accurately and without tension, and when effusion, air, and accumulation of liquid within and near the wound is prevented. These ends, Mr. Gamgee holds, are promoted by light manipulation, drainage, dry and infrequent dressings, pressure, and absolute rest. His views on the treatment of wounds are, from his numerous contributions on the subject, well known.

Prof. Humphry of Cambridge also read a paper. He attributes the causes of failure to (1) the delicacy and sensitiveness of the tissues in infantile and early life, which renders them liable to inflammation and ulceration upon slight irritation; (2) the deficiency of the nutritive energy requisite for the healing processes

in the atonic and the aged, evinced most especially in the lower limbs, when there is disease of the arteries; (3) the presence of foreign substances in the wound, especially blood or bloody fluid, which separates the surface and has, further, a tendency to decomposition. The methods best calculated to secure primary union, Prof. Humphry says, are therefore those which maintain the apposition of the cut surfaces most effectually and with least irritation, and which provide against the presence of blood and bloody fluid in the wound—sutures of such material and applied in such a manner as is most likely to cause no irritation, quietude of the part, gentle, uniform pressure, and fixing on a splint where that can be done. The effusion of blood into the wound after it is stitched up is best prevented by carefully securing the vessels by ligature or by torsion; the actual cautery may be freely used as an adjunct; the use of ligatures and stitches made of material which undergoes absorption; the insertion of a drainage tube and the expression of blood from the wound through it as long as it continues to flow. Prof. Humphry holds that antiseptics are an additional precaution, preventing the decomposition of any bloody-fluid which, in spite of the above-mentioned precautions, may be effused into the wound. They are especially valuable when cavites are opened. He thinks that Esmarch's bandage promotes bleeding from cut surfaces soon after its removal, but rather lessens the risk of subsequent effusion.

In M. Verneuil's paper on "Primary Union," he says, in conclusion, that the attempt to obtain primary union is sometimes essential and necessary, sometimes only a supplement to the operation and altogether optional. Before aiming at primary union, in which it is only optional, not essential, the surgeon should satisfy himself that the patient is not the subject of some morbid state which would make it more advisable to give up or postpone the attempt. The surgeon should avoid the risk of failure, which is more or less associated with danger, and seek some of the dressings which, while offering a more rapid cure, secures greater safety to the patient.

Mr. Savory, in the discussion which followed, pointed out that primary union was most likely to occur when the fresh surfaces

are brought together in their natural state and maintained so without disturbance. The chief cause of failure he believed to be "meddlesome surgery," and essential principles were rest, cleanliness, and asepsis, which admit of almost endless variation in detail. He asserted that his Cork statistics had not been surpassed, though equally good results were obtained by many different plans of treatment. Prof. Esmarch's statistics of his own practice were very remarkable. In 398 great operations (six deaths,) 85 per cent of the cases cured, healed by first intention with *one* dressing; in 15 per cent the dressing was renewed; and this ratio had improved of late. There were 146 excisions of large tumours, 40 excisions of mammæ and axillary glands, 14 castrations, with one death from pericarditis and old syphilis, one from apoplexy, and one from fatty heart. Of 51 major amputations (thigh, 18; leg, 27; arm, 5; forearm, 1), one died from shock and hemorrhage, and one from *delirium tremens*. There were 61 resections; 11 exarticulations; 26 necrotomies; 13 nerve-stretchings, one for tetanus, which was fatal; 8 hernias; 21 large cold abscesses; 12 large wounds; 49 compound fractures. The cases were all dressed with pads soaked in iodoform and absolute alchohol (10 per cent), fastened on by an iodoform bandage, over that a large pillow of jute aud gauze, a moist bandage, and over all an elastic bandage. (Report in *London Lancet*, Aug, 13, 1881.) These statistics are certainly wonderful, and go far to confirm the confidence of surgeons in rest, support, and infrequent dressings. In fact, much evidence was offered and many opinions given which only corroborated the above, and all tending to support the views which Mr. Gamgee has so ably advocated, viz., the success of dry dressing with support and compression, combined with antiseptics, in the treatment of wounds. A few days before, in the discussion on the recent advances in the surgical treatment of intra-peritoneal tumours, Dr. Keith had startled tho section by stating that after having had a succession of eighty successful cases with Listerism, he had five deaths iu the next twenty-five—two from carbolic acid poisoning, one from septicæmia,and two from acute nephritis. On account of this mortality, and of the very frequent high tem-

perature the evening after the operation, he had *abandoned the spray* in all operations, and had had one death in twenty-seven ovariotomies without antiseptic treatment. Prof. Lister, in closing the discussion on the causes of failure of primary union in operation wounds, in reference to Dr. Keith's experience, stated that he had dissuaded him from using antiseptics in the first instance, as carbolic acid, in wounds of the peritoneum, increased the effusion and lessened absorption. He said that recent experiments showed that both blood serum and blood clot were not favourable to the development of organisms. He expressed his belief that it is "solid bits of dirt" that are the deleterious agents, and that too much attention has been paid to finest particles floating in the air. He admitted that he himself might at some future time be able to say "fort mit dem spray" (away with the spray), but that at present he could not accept irrigation as a substitute for the spray, (*Lancet* Report) From this discussion, I should predict that the spray, and, perhaps, also the mysterious germ, are doomed, at no very distant period, to follow into oblivion many other "fads" and rituals which have before held the surgical world in bondage. The value of antiseptics is recognized by all, but many other simpler methods than Listerism are now showing as good results. We must all admit, however, that we owe much to Prof. Lister, and his name will be always remembered as one who revolutionized the surgical treatment of wounds by directing the attention of surgeons to the importance, not only of antisepticism, but of rest and support, and the possibility of preventing suppuration and the septic conditions it leads to. I have always attributed the great success of Listerism, not principally to the use of antiseptics, which answer only one of the requirements of wound treatment, but to the accurate adaptation of the wounded surfaces, the thorough drainage, the masses of stiff gauze used in dressings (guaze makes a beautiful splint by its elasticity and adaptability to surfaces and parts it is applied to), also to the careful bandaging over this gauze splint and the uniform and safe compression thus obtained. The spray, &c., may be looked upon as merely ornamental adjuncts which, if somewhat troublesome, are imposing.

*Recent advances in the Methods of Extracting Stone from the Bladder.*—Every one must admit that Dr. Bigelow of Boston, by the introduction of his operation, has not only made one of the most distinct advances in the treatment of stone in the bladder which has taken place in the last decade, but that his operation may be considered to be one of the most important improvements in modern surgery. At the late International Congress, all were agreed as to the great value of lithotrity at one sitting, and gave Prof. Bigelow full credit for its introduction, and also for his axiom that the bladder was more tolerant of instruments than sharp fragments of stones, and that their immediate remo-al was the best mode of practice.

Sir Henry Thompson, in his paper, stated that he had performed the operation of "lithotrity at one sitting; 91 times, with 88 recoveries. He, however, contended that the size of the instruments should be proportionate to the size and hardness of the stone, and never larger than necessary, that risk to the patient was greatly augmented by the employment of instruments which distended the urethra beyond its natural calibre. Here his views are at direct variance with Prof. Bigelow, who belives no harm results from distending the urethra. Sir Henry advises occasionally the combination of a urethral opening in the perineum with a crushing operation in the bladder as an available means of evacuating both *débris* and urine.

In the discussion which followed, Mr. Coulson spoke of having removed 4 ounces of *débris* at one sitting. Mr. Teevan said there was complete absence of cystitis after "Bigelow's operation." Mr. Th. Anger of Paris advocated the performance of supra-pubic lithotomy by means of the thermo-cautery, when there was an enlarged prostate which was firmly wedged into the true pelvis; in other cases, the perineal incision should be preferred. In using the cautery, the operation is rendered easy, methodical and bloodless, the wound made is dry, and renders the patient less liable to urinary infiltration. Mr. Spence of Edinburgh said his experience was chiefly limited to lithotomy. In children the results of lithotomy were so successful that he would never think of performing lithotrity in them. In lateral lithotomy he used

Dr. Buchanan's rectangular staff, except in the case of old men with enlarged prostate, then he preferred Listor's curved staff. In cases of enlarged prostrate, where the gland is much condensed, diliation with the finger made no progrees, and it was necessary to use the knife to get room for the forceps, and in withdrawing the stone the dense prostate was forcibly wedged against the ramus of the pubis; such cases frequently died some weeks after the operation, and although the wound was not directly affected and the patient's death was spoken of as due to some intercurrent disease, they died as truly from the operation as if they had died on the operating table. Such cases, if they could be diagnosed, would no doubt best be dealt with by the supra-pubic operation. He could not, however, see the advantage of the thermo-cautery which M. Anger had so strongly recommended, as he had not been favourably impressed by the condition of the wound in cases af tracheotomy in which he had used it. Mr. Teale of Leeds said that the fatality after lithotomy had been lessened of late years by two factors—firstly, the improved sanitary condition of hospitals, and, recently, by the more gradual extraction of the stone, the surgeon taking pride, not in the rapidity, but in the carefulness of his manipulations.

*Treatment of Aneurism by Esmarch's Elastic Bandage.*—A number of papers were read on the above subject. Dr. Walter Reid, R. N., related the history of the original case in which this treatment was employed, and explained the principles on which it was conducted. Mr. Bellamy, of the Charing-Cross Hospital, said in his paper that he had tried the bandage in four cases; in three the treatment utterly failed. He considers the bandage quite useless in the treatment of cases in which the aneurism is of rapid development and the sac is highly compressible, and where there are heart complications. Mr. A. Pearce Gould, of Westminister Hospital, also read a paper in which he pointed out that while other methods of treatment lessen or entirely stop the flow of blood through part or parts of the main blood channel, they do not interfere with the blood current in the secondary vessels, or control the anastomotic circulation. Esmarch's Elastic Bandage on the other hand, when firmly applied, stops the cir-

culation in *all* the vessels of the part, and thus does not cause a deposit of fibrin, but may cause a coagulation of the blood *en masse*. Thus this mode of treatment was not applicable to all kinds of aneurisms. He insisted on the value of preparatory treatment.

From the whole discussion, it appears that the bandage is not likely to supersede the older methods of treatment, but that it certain cases, where consolidation has already commenced, it is likely to hasten the cure, and may be occasionally resorted to with success.

*Excision of Joints.*—M. Ollier, in his paper on the "*Comparative value of Early and Late Excisions in different forms of Articular Disease*," said that the results of resections of joints depend on the following conditions: 1. On the method of operating; 2. On the amount of existing disease. Any method may prove useless if the joint be too much disorganized. As a general rule, the earlier the excision is performed the better the result which will be obtained. Age has a great influence on the results. Antiseptic treatment makes early excision more advisable than formerly. The author then enquired into the different resections of the larger articulations, and gave an analysis of one hundred resections of the elbow performed by him. After giving some rules applicable to resection for injury, he said primary resections were apt to be followed by a too extensive deposit of new bone. He demonstrated the advantages of secondary excisions and the disadvantages of postponing the operation too long.

Prof. Kocher of Berne read a paper on the "*Results of the Treatment in Chronic Disease of the Knee Joint, including an account of fifty resections of the joint.*" The following is a summary of the paper: 1. Amputation of the thigh is indicated in cases where white swelling occurs in patients suffering from tuberculosis of the internal organs, or those whom the disease has rendered very anæmic, or who present a constant high temperature, or are reduced by prolonged suppuration. 2. In all other cases, resection is the best treatment, if contraction of the joint or considerable functional disturbance have occurred. 3.

Under these circumstances, resection in every way gives better results than are obtained by conservative treatment. 4. Resection should only be resorted to in exceptional cases in childhood or advanced age. The results are as good, or better, as regards union of the ends of the bones, in adult life than in childhood. 5. Since the author has commenced the practice of resection, the mortality has only been 12 per cent, and now—thanks to recent improvements and the introduction of antiseptics—the operation has become free from danger. 6. The author's present endeavour is so to improve the method, that movable and, at the same time, firm joints may be secured.

In the discussion which followed the reading of these papers, Mr. Teale advocated subcutaneous incision of the capsule for the arrest of incipient joint disease. He considered rest of the first importance, but subcutaneous drainage of serous fluid and external drainage of pus, or trephining of diseased bony structures, necessary adjuncts. Mr. C. Heath protested against early excision when general and local treatment were available, but regarded excision as required in incurable cases; he also declared that excision in private practice was almost unknown, and not required on account of the good hygienic surroundings of the patients. Mr. MacNamara thought the majority of cases of joint disease might be cured in their early stages, and thought it wise to relieve tension of the joint where it contained much watery fluid, and after evacuating the fluid, he advised encasing the joint with cotton wool and an elastic bandage. He also mentioned that he had had recently under his care two cases which showed that acute inflammation of the epiphysis of a long bone is apt to involve not only the periosteum, but also to cause osteo-myelitis. In both these cases he had removed the whole shaft of the tibia, leaving only the epiphysis and the periosteum. In the one case the bone had been reproduced and the patient had a useful leg; in the other (referred to in the last Quarterly Retrospect), after six months no such reproduction occurred, so he has transplanted some perfectly fresh and very small pieces of bone and periosteum (from the foot of an amputated limb) into a groove made in this patient's leg, in the situation of the tibia. At the present time

(six weeks after the transplantation) a narrow ridge of bone could be felt in the desired situation.

Mr. Croft remarked that many patients suffering from acute articular disease did get well without operation, but added that recent statistics showed that excision of the hip-joint diminishes the average duration of the disease by one year; further, seven out of thirty-three cases of morbus coxæ, cured without excision, presented 3¼ inches shortening, which was as much as ordinarily occurred after excision. Mr. Howard Marsh pointed out that to perform early excision was to renounce the attempt to cure incipient disease and to resort to the easy method of cutting out the affected part. If this was right for joints, was it not also for the testis, which, like them, might be a source of systemic infection. He also said that in private practice joint affections were curable and excision almost unknown. Sir William Fergusson introduced excision as a substitute for amputation. This was truly conservative. He aimed at saving the limb by removing the joint. But to remove so important an organ as the knee joint for incipient disease was, surely, to turn the dial of progress many degrees backwards. Excision, like amputation, must always rank as a mutilation, and as such, he maintained, it should, if possible be avoided. Real progress lay in the direction of insisting on the importance of early treatment by complete rest.

In the section of *Diseases of Children* there was also a discussion on the *Treatment of Chronic Diseases of Joints.* Prof. Hueter, of Griefswald, read a paper on the *Scrofulous Inflammation of Joints.* After describing what constituted a scrofulous inflammation of the joint and the results of such an inflammation, he affirms that the early stage of scrofulous inflammation might be successfuly treated by the injection of a 3 to 5 per cent. solution of carbolic acid into the joint, and that antiphlogistic treatment (fixation, massage, compression, extension, blood letting, blistering), was of little or no value. Incisions, drainage, scraping away granulations, &c., were to be discarded, and that carbolic acid injection having failed, excision is the best treatment, especially after suppuration has set

in. Excision should be total, and when practised early the results are more satisfactory.

M. Ollier, in his paper on the *Excision of Joints in Children*, said every excision of a joint during childhood interferes with the subsequent growth of the limb and that the subperiosteal method interferes less with the growth. Inequality in length becomes visible only after a time, and varies with the extremity. This arrest of growth, which is quite inevitable, should induce the use of antiseptics and the "abrasion articulaire." Where ankylosis is desired as little should be removed as possible (knee), but where mobility is essential, efforts should be made to secure a new joint (elbow.)

Prof. Sayre, of New York, believed that if these joint affections could be diagnosed early enough, resection would never be necessary. He advocated the application of an apparatus to the limb which took off all pressure from the joint and allowed the patient to get about. If the case went on to suppuration, then excision was the best operation, and often attended with wonderful success. M. Fochier advised fixation of the joint in the early stage. Mr. Benton thought with Prof. Hueter, that fixation and extension were of little use in chronic disease of the knee joint He advocated movement of the knee ; the pain, he thought, was due to adhesion, and the true way was to break down these adhesions with a sudden jerk, which snapped them in the middle ; the child should then at once be made to walk about. Mr. Timothy Holmes did not understand how a disease which depends, as Prof. Hueter says, on auto-infection, can be cured by so simple a means as mere rest ; yet, that it was so cured, is a very well known fact. He thought it rather too absolute a method to say inject with carbolic acid, and if that fail excise the joint. He did not feel inclined to accept this advice as final, though he has a great respect for the opinion of Prof. Hueter. He thought it necessary to give the joint rest ; that it was important to achieve this end, more important even than to obtain fresh air, as was evidenced by the experience even of London hospitals. He thought the injection of joints and other violent methods unnecessary. Prof Hueter, in reply,

said he fancied scrofulous cases were more grave in Germany than in England. He did not deny that a joint might be cured without injections, &c., but he believed that it was cured by time and not by rest. (Report in *Brit. Med. Jour.*, Oct.1,1881.)

From the discussion in both sections it was clear that English surgeons only resort to excision in extreme cases, and all thought rest the most rational and conservative treatment in the early stages of joint disease, and deprecated the early excision of joints as a cutting of the Gordian knot. No doubt the antiseptic system is responsible to some extent for this reckless cutting out of joints; but the principal reason is that hospitals have not the space nor means to keep cases of joint disease month after month in their wards undergoing the treatment of rest, and that until more space is given by hospitals for the special treatment of joints by rest, the temptation will be to excise and to save time. John Hunter has said "to perform an operation is to mutilate a patient whom we are unable to cure; it should therefore be considered an an acknowledgment of the imperfection of our art."

*Treatment of Spinal Curvature by Sayre's Method.*—Papers were read on the above subject, in the section of Diseases of Children, by Dr. Bellem, of Lisbon; Mr. Golding Bird, Mr. Henry F. Baker, Mr. Walter Pye and Mr. Arthur Barker, all of London. Dr. Bellem accepted almost to the full Sayre's views, but did not approve of the "jury-mast." Mr. Golding Bird said that in early cases of general curvature cure might be confidently expected with Sayre's jacket, but that in advanced cases little benefit could be derived from it In spinal caries the plaster jacket gave the required "physiological rest" to the inflamed spine, and might be applied during either vertical or horizontal extension. He considered it the best form of spinal apparatus yet devised. Mr. Baker said that in angular curvature the use of the plaster jacket did not give the required rest to the spine, that it was liable to constrict injuriously the chests of growing children, and that a state of recumbency was absolutely necessary to prevent the deformity increasing in the first stage of the disease. In a very limited number of cases where

the disease had been arrested and other forms of support could not be obtained, it was undoubtedly of use. In general curvature the suspension as recommended by Sayre was a useful addition to other methods of treatment, but the plaster jackets were inferior to those made of steel, which could be adjusted at any time by the surgeon. Mr. Walter Pye thought that in many cases the jacket was hastily und needlessly applied, and that its employment was often actively harmful; that it was of no use in rickety spines or simple lateral curvature. In certain cases of true spinal caries in infants in the early stages the older plan of rest in the horizontal position succeeded better, and was free from risk, but in older children the jacket might be used from the first. It might also be used from the first in cases in which the heart and lungs are affected in addition to the spinal affection, and cases in which carious spine is associated with any high degree of paralysis, incontinence of urine, &c. Many jackets he considered were too thick and strong, also badly shaped and badly fitted. He strongly disapproved of the use of the swing, and advocated, when applying the jacket, holding the child by the arms, with the feet resting on the floor. He also advocated the use of the inclined plane. Mr. Arthur Barker believed Sayre's method for the treatment of spinal caries to be the best yet devised, and that failure was due to want of care in carrying out the directions of the designer.

A very spirited discussion followed the reading of these papers, in which Dr. Sayre took part. Mr. Timothy Holmes summed up as follows:—1. Nobody seriously contested the priority of Dr. Sayre as the introducer of the method. 2. The discussion had dealt almost exclusively with angular curvature, to which it would perhaps have been wiser to have altogether limited it. 3. More speakers who recommended the jacket treatment seemed to be agreed that the earlier it was employed the better, but we were unable still to say whether and how far symptoms of decided spinal irritation or inflammation should be taken as contra-indicating it. 4. Only a small minority of the speakers rejected the method; the majority agreed that at any rate in a large majority of cases the method offered very great advan-

tages. 5. No form of extension (by suspension or otherwise) was a necessary part of the treatment; the jacket could be applied when the patient was suspended, or erect, or horizontal. 6. There appeared to be no evidence that any actual straightening of the spine has ever been produced. 7. Though Dr. Sayre and most other speakers appeared to prefer the plaster, there seemed no valid reason why other plastic material might not do as well. The possibility of changing the inside shirt without removing the jacket was an important practical point brought out in the discussion. [This referred to a suggestion made by Mr. Oxley, of Liverpool, viz., that patients might be kept clean by changing the undershirt. This might be done by putting on two undershirts when the jackets were first applied. When the shirt was to be changed a clean singlet was tied on to the lower edge of the singlet next the skin, and by drawing the soiled shirt off the clean one was drawn on.] 9. That there were many drawbacks in the shape of ulcers, abcesses, &c., seemed not only possible but inevitable. The extent and nature of these drawbacks should be stated, but they formed no radical objection to the treatment. 10. It seemed probable that the average length of time required for cure would be found much less than the treatment by rest in bed. 11. Finally the general opinion seemed to be that this was a real and great advance in practical surgery.—*Brit. Med. Jour.*, Sept 24, 1181.

Few besides Dr. Sayre advocated the use of the jacket in lateral curvature of the spine, and the majority also condemned his method of extension. On the whole, however, Dr. Sayre could not but feel flattered at the almost universal acceptance of this jacket as a means of treatment for spinal curvature. After Mr. Holmes' masterly summary of the results of discussion nothing more need be said with regard to it.

*Partial Excision of the Bladder.*—Dr. Adolf Fischer, of Buda-Pesth, in his paper mentioned that ancient surgeons believed a surgical wound of the bladder would terminate fatally, but that in more recent times, however, comparatively large portions of the bladder have been removed on account of prolapsus without fatal result. He has made a number of success-

ful experiments on dogs, and comes to the conclusion that in dogs at least, wounds of the bladder which are afterwards carefully united by sutures are not particularly dangerous, and that good results depend principally on the accuracy of the suture. Dr. Fischer says that the indications for partial excision of the human bladder may be brought at present under the following heads:— 1. Traumatic injuries of the bladder with contused edges. 2. Diverticula of the bladder, containing encysted calculi. 3. General dilatation of the bladder, when the cause of the disease has been removed or is removable. 4. Benign and malignant tumours involving the wall of the bladder. 5. Vesico-abdominal, vesico-vaginal and recto-vesical fistulæ. 6. Destructive ulcerations threatening rupture and withstanding other modes of treatment. I fancy that this operation is not very likely to come into fashion, especially for the diseases mentioned in the list. The diagnosis of several is by no means certain, and with regard to the others the remedy might be almost considered worse than the disease.

*On the Permanent Retention of the Œsophageal Bougie.*—Dr. Krishaber stated in his paper (1) that the œsophagus tolerates the presence of a bougie for an infinite length of time, (1) that the bougie should be introduced through one of the nostrils, and (3) that the presence of a bougie leads to dilatation of stricture of the œsophagus and renders the introduction of larger bougies possible, as in the urethra. He also stated that a secuity against starvation is ensured and the danger of false passage avoided. It is of great use in the performance of operations about the mouth, nose, &c.

*The different opinions on the variety of Chancre*, by C. R. Drysdale, M.D., London.—The author said a wide difference of opinion existed on the question of primary lessons of sylphilis. In France, and on the Continent, the dualistic theory was maintained, viz., that the chancre of syphilis was quite distinct from the soft sore. The former was always, the latter never, followed by the secondary symptoms of syphilis, unless the two scores coexisted on the same patient. Having shortly described the distinctive features of the two sores, both as to appearance and

course, the author said he was wholly convinced of the truth of the dualistic view. But there was in England a strong school which did not hold this view, and its leader, Mr. Hutchinson, had said some years ago that "dualism was dead." Statistics collected at the Hôpital du Midi in Paris were opposed to Mr. Hutchinson's position, which was this, that soft sore was due to an inoculation with pus modified by the presence of syphilis in the person from whom it was derived. But the speaker believed that the soft chancre was a distinct disease, that it bore the same relation to syphilis as measles did to scarlet fever.

Mr. Jonathan Hutchinson said that everybody believed in the clinical difference between the hard and the soft sore, and could, as a rule, make a prognosis from the aspect of the sore, but he doubted whether it was always possible to recognize with certainty the soft sore from the hard sore, though with characteristic sores there was no difficulty. He believed that the soft sore was a sort of appendage to syphilis—an epiphenomenon. The soft sore was due to the inoculation of inflammatory secretions only, but modified, in some way which he could not explain, by the coincident presence of syphilis in the individual who yielded the pus. It was a sort of abortive innoculation. Soft chancre bore the same relation to syphilis that imperfect vaccination, which often caused much irritation and even ulceration, bore to perfect vaccination. But he agreed that the soft sore was only a transitory affection, while the hard infected the system ; so that the difference between him and Dr. Drysdale was, so far as practice went, not great.

Dr. Louis Julien (Paris), in a paper on *Excision of Chancre* believed that excision under certain circumstances surpresses all subsequent manifestations, and where it failed to do this, the subsequent disease was milder and more slowly developed.—*Brit. Med. Journal Report*, Sept. 17, 1881.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Recent Operations for the Cure of Club-foot.*—In ordinary cases of this affection in children, tenotomy with proper after-treatment by apparatus or plaster of paris, &c., is nearly always found to be successful, if sufficient care is given by the surgeon to the after manipulation. When failure occurs it is usually because, after the tenotomy and the placing of the foot in proper position, the patient is not seen again, or if seen, at long intervals. There are some cases of club-foot, however, which are but little benefited by dividing the tendoms and replacing the foot in position. In these intractable and relapsing cases some surgeons, especially Mr. Davy, of Westminster Hospital, London, advocate excision of part of the tarsal arch. The general opinion is that this is rather too severe an operation to be resorted to in children. Mr. Davy thinks otherwise, and has operated successfully in these cases. In seventeen operations on fourteen patients he has lost one case, from septicæmia. All his cases were treated without antiseptics, and in fact without dressing of any kind. The majority recovered with bony union, but he states fibrous union would answer well. He has had no case of relapse. Mr. Davy commenced by excising the cuboid bone, but now removes a wedge-shaped block of the tarsal arch. He at first insisted strongly that the foot should be firmly fixed in a vice to render it sufficiently steady for the chiselling to be done during the operation. (Davy's Surgical Lectures.) Now he uses a fine saw, instead of the chisel, to remove the wedge-

shaped piece of bone. (*Brit. Med. Jour.*, Oct. 31, 1881.) The position of the wedge-shaped piece of the tarsal arch to be removed depends on the kind of talipes to be operated on. For instance, in talipes equinus, a wedge, having its base upwards, is taken from the arch ; in talipes varus, the base of the wedge would be more inwards to overcome the deformity. A portion of the skin is first removed, then the soft parts are raised away from the dorsum by a blunt periosteal knife and a grooved director passed between the soft structures and the bone, a probe-pointed saw is then slid along the groove on the under surface of the director and an accurate wedge of bone sliced out. The wedge generally includes slices of the astragalus, os calcis, scaphoid, and cuboid bones. The gap is then approximated, and the foot is placed in proper position by means of a back splint, with a foot-piece, and the leg put up in gum and chalk bandages over a flannel roller. The wound is left open and swung, so that it is dependent.

Mr. Bennett exhibited a man, aged 47, at the Clinical Society in London on Dec. 9th last, who had been the subject of severe talipes equino-varus, and on whom he had performed excision of the tarsal arch. (*Lancet* Report, Dec. 17, 1881.) He had previously been treated by tenotomy with only partial success. The operation of excision was performed on June 30th, 1881, antiseptically, and drainage tube and antiseptic dressings applied. By July 8th the whole wound had healed except a small sinus. The antiseptic dressing had now to be discontinued on account of severe carbolic irritation of the skin, and a few days later erysipelas attacked the wound, which had to be opened up. The union of the bones all broke down. By Sept. 8th the wound had again healed, and by Nov. 8th he was allowed to walk with boot and iron support. When exhibited the union of the bones was firm but not bony. The patient had a useful foot.

It is plain that this is a most formidable operation, and should not be undertaken except for the most intractable cases which have not been benefited by other treatment. In Mr. Davy's cases the average duration of treatment was about two months.

The short time taken in effecting a cure is an important consideration in patients of the poorer classes, especially when they are unable to purchase suitable apparatus. Mr. Davy has lost one case out of seventeen operations, and König, one out of three. Both patients died of septicæmia. It seems to be a more scientific and conservative operation than Chopart's, which is sometimes resorted to.

Dr. A. M. Phelps, of Chateaugay, N. Y., has lately introduced a new operation for club-foot. The number of cases operated on are too few to, as yet, pass a definite opinion upon it. The cases reported so far have been wonderfully successful, the patients being able to walk about at the end of six weeks to two months. As a detailed description has been given in the November number of this Journal of Dr. Phelps' method of operating, I shall only state that that operation is performed by making an incision across the sole of the foot and dividing all the resisting structures down to the bones. The foot is then brought into normal position on a special splint and the wound left open. By drawing a pointed stick of nitrate of silver through the bottom of the wound the granulations are prevented from springing up too rapidly, and the wound is induced to heal from the sides "by the skin gradually crawling downward into the wound." In making the incision the arteries and nerves should if possible be avoided. Esmarch's bandage should be used. Dr. Hingston, of this city, a short time ago exhibited to the Medico-Chirurgical Society a patient who had been operated on in this manner. The result seemed to be satisfactory, the patient having a useful foot and being able to walk on the sole.

*Extirpation of the Lung.*—The latest attempt to extend the domain of surgery, at any rate, as regards the lower animals, is the removal of the lung. Gluck appears to have first conceived the idea that so tremendous an operation might be endured, and after some experiments on dead bodies, he performed the operation on dogs, and found that it was fairly well borne, and that the animal might recover perfectly. When death occurred it was due to pericarditis or to pleurisy on the

remaining side. He believes that in man diseases of the lungs are not so far removed from surgical interference as is commonly believed, and that the excision of a diseased lung or part of a lung, would, under certain circumstances, be a justifiable operation. Analogous experiments have been made by Schmid. On eight dogs operated on, five died from two to three days after the operation; three of the animals recovered. Schmid concludes that the lung can be operated on without special mechanical difficulties and without important hemorrhages. He has practised a similar operation on the human (dead) body, and found that after resection of two or three ribs there was no special difficulty. M. Marcus in France has been unsuccessful in his attempts to excise the whole lung in dogs, as the animals quickly died, but a rabbit survived the operation. These experiments may encourage the minor applications of surgery to the lung; but it may be doubted whether the excision of a part would ever be justifiable, since the diagnosis of malignant disease can rarely be made with such certainty and sufficiently early to permit its excision; and the applicability of the operation to the cases for which it is suggested by Schmid, tubercular disease of the apex, is manifestly absurd.—*London Lancet*, Dec. 24, 1881.

*Treatment of Gonorrhœa.*—There is perhaps no affection for which there is such a variety of treatment and such a number of specific cures. Its treatment is not confined to medical men; every druggist thinks he has a heaven-born genius for managing this disease, and the number of powerful caustic and astringent remedies patented for the cure of gonorrhœa and gleet exceeds the wonderful pills sold for the cure of all uterine diseases. Both internal and local remedies are in great variety, and fashion rules in this as in many other things. Every new remedy is, of course, highly recommended, and is better than any that has preceded it.

Zeissl, in *Wiener Med. Woch.*, advises for acute gonorrhœa three or four injections daily, feebly astringent, viz., 1 to 3 grs. of hypermanganate of potash in eight ounces of water. If the patient is no better in eight days the strength is increased.

Later on gr. v. of sulphate of zinc in eight ounces of water are given. If this fails he advises solutions of subnitrate of bismuth or pure powdered kaolin, seventy-five grains in eight ounces of water, or sulphate of zinc and acetate of lead, each half a drahm to eight ounces of water. If the affection becomes chronic, he introduces bougies into the urethra, allowing them to remain five to ten minutes. He is opposed to strong injections at the commencement of the disease, and even later he says they should only be employed with great prudence. In regard to internal treatment, he uses matico, cubebs, copaiba and perchloride of iron. Prof. Zeissl insists on the known fact of the co-existence of prostatic hypertrophy and chronic urethritis.—(*St. Louis Med. and Surg. Jour.*)

In gleet, Mr. Reginald Harrison advises frequent irrigation of the deeper portions of urethra by means of a soft catheter and slightly astringent solutions. By thus washing away the discharge which collects in the bulbous portion of the urethra the liability to stricture is lessened.

Dr. Wilson (*London Lancet*, 1881), has treated sixteen cases of gonorrhœa with the greatest success, his patients being at work in an average of six days. His method is placing the patient on low diet and administering injections of sulphurous acid diluted in water (one to fifteen) three times a day. The injections to be effectual should be kept in the urethra three to five minutes. At the end of three days the purulent discharge will be replaced by a gleety one, and then only one injection should be used daily. The first injection often causes pain, which is not complained of afterwards.

Dr. R. Park, in an article on "Therapeutics of Ol. Sant. Flav." in *London Practitioner*, of December, 1881, says oil of sandalwood has been employed largely for the last twenty years in the treatment of gonorrhœa and urethral and vaginal discharge generally. He says there is no use prescribing it for the purpose of *curing* a gonorrhœa, if by that term is meant urethritis or other pathological condition causing discharges. For the discharge, however, he asserts the Ol. Sant. Flav. is distinctly the most specific drug he is acquainted with. It re-

strains the "running" at once, very frequently stopping it in forty-eight hours; but it requires to be continued *quite a fortnight after entire cessation of discharge* to make sure the latter does not return. It produces these effects in the most acute and the most chronic cases alike. He gives fifteen to twenty drop doses three times a day. The average duration of cases treated by this method, he says, may be broadly stated to be three weeks. Twenty drops is a full dose, and this quantity invariably produces griping of the bowels and dull, lumbar aching. He also uses in some cases a large bougie smeared with a liniment of vaseline and Ol. Sant. Flav. The *modus operandi* of this drug he believes to be (1) (Neuræsthetic?) upon the pelvic and genital nervous system; (2) Antiseptic, or rather *contra purulent*. It also appears to be a special stimulant to unstriated muscular fibres, and in this way constringent. It has a drying effect on all mucous surfaces, when healthy or diseased.

*Nerve Stretching.*—The operation of nerve stretching is coming more and more into favour for the purpose of curing or relieving certain affections of the nervous system, as locomotor ataxy, spasmodic tic, neuralgia, &c. Dr. Langenbuch, of Berlin, introduced a discussion on the subject in the late International Congress in London. With regard to the *modus operandi* of nerve stretching, we are as yet much in the dark, and much has still to be found out about the class of cases to which this operation is most applicable. The German surgeons publish more favourable results than those obtained by others, but even in their cases results differ very widely in different cases.

Dr. Davidson has recorded two cases in the *Liverpool Medico-Chirurgical Journal* of stretching the sciatic nerves for locomotor ataxy. In one case, after three weeks, there was improvement as to co-ordination, and the lightning pains had ceased. At the end of two months the patient could walk fairly well, and the patellar reflex was very evident. The degree of stretching was 40 pounds, or half the breaking weight of the sciatic nerve. In the other case the ataxia was not improved, though the pains were much less. The disease

in this case was much more advanced than in the first case.—*Lancet.*

Mr. F. A. Southam, in an article on "Nerve Stretching," with particulars of three cases (*London Lancet*, Aug. 27, 1881), says:—"Since the nerves of the brachial plexus were stretched by Prof. Nussbaum in 1872, for spasm of the arm, numerous are the affections in which this method of treatment has been adopted. For a time it was restricted to neuralgia and other painful or spasmodic affections of a simple localized nature, but more recently it has been adopted in diseases of a more general character, as for example, tetanus and locomotor ataxy; and during the last few months, cases of anæsthetic leprosy have, in India, been successfully treated by this plan."

Mr. Southam's three cases were all cases of clonic spasm.

In Case I., of clonic torticollis, he first stretched the spinal accessory nerve, and though temporarily relieved, no permanent benefit following, he afterwards excised a portion of the nerve, also without good result, owing to the fact, he thinks, of his not getting above the point where the spinal accessory gives off some muscular branches to the sterno-mastoid muscle.

Case II. was also a case of clonic torticollis. In this case he stretched the spinal accessory. The muscular spasms came on in paroxysms, separated by brief intervals of complete rest. In addition, the deep muscles of the neck, back, and also both arms, were affected with clonic spasm. Locomotion was somewhat impaired—both legs—but more especially the left, dragging slightly; spasms much increased by emotional disturbance. Eating was performed with the greatest difficulty, and it was with the greatest effort he could bring his hand to his mouth. The operation was followed by great relief for about six weeks, when a relapse set in, but this passed off. At the time of writing a decided improvement had taken place in the patient's condition, the spasm only coming on at long intervals, especially when his attention is directed to it.

The operation is simple. An incision two inches long is made along the posterior border of the sterno-mastoid, its centre being on a level with the upper border of the thyroid cartilage. After

cutting through the deep cervical fascia the spinal accessory nerve will be readily found running obliquely along the floor of the posterior triangle.

Case III. was one of clonic spaasm of the muscles of the face, and the facial nerve was stretched, with the result of completely relieving the spasm. The facial paralysis caused by the stretching was disappearing five weeks after the operation.

Mr. Southam states that previous to his case only five cases are recorded of this operation having been performed; once in England by Mr. Godlee, of University College Hospital; three times in Germany, by Baum, Schussler and Eulenberg; and once in America, by Dr. James J. Putnam. The operation is performed by making an incision behind the ear, from the level of the external meatus to near the angle of the jaw; the sterno-mastoid and parotid gland are then pulled in opposite directions, exposing the upper border of the digastric, close to which the nerve is found as it emerges from the stylo-mastoid foramen. Since writing his paper Mr. Southam has adopted nerve stretching as a means of relief in three cases.—(*Lancet*, October 8th, 1881.) The first was a case of idiopathic lateral sclerosis in a man, aged 36, under the care of Dr. Morgan, at the Manchester Royal Infirmary. At Dr. Morgan's suggestion, Mr. Southam stretched the sciatic nerve; on the second day after the operation the shooting pains ceased, and in the course of a fortnight ankle clonus and patellar reflex began gradually to reappear. Six weeks later there had been no return of the pain. In the second case, under the care of Dr. Dreschfeld, the left sciatic nerve was stretched by Mr. Southam for locomotor ataxy in a man aged 51, at Dr. Dreschfeld's suggestion. The operation was not at first attended by any apparent result. After about ten days, the shooting pains, in both legs, began gradually to disappear, and he left the Hospital greatly relieved in this respect, but with the other symptoms in no way affected by the operation.

The third case was one of clonic spasm of the muscles of the face in a woman aged 32; duration 4 years. Four weeks after the operation there was no return of the spasms, and paralysis was only present to a slight extent.

At a meeting of the Surgical Society of Ireland, in December last, Mr. Wheeler detailed the treatment of a case of acute tetanus, by nerve stretching, which was successful. The patient, a girl aged eight, last October received a lacerated wound of the hand, and when tetanic spasms came on the usual remedies were administered without effect. The median nerve of the forearm having been exposed, was stretched, and the patient progressed gradually towards recovery.—(*Lancet*, December 10th, 1881.)

H. E. Clark in July, 1879 (*Glasgow Medical Journal*), reports a successful case of nerve stretching in a case of acute tetanus.

R. M. Simon, in the *Brit. Med. Jour.*, Feb. 25th, 1882, reports a case of infantile paralysis affecting the right leg in a child five years of age, greatly benefited by stretching the sciatic nerve.

*L'Union Medicale*, of November 8th, 1881, states that at a meeting of the Societé de Chirurgie, November 2nd, M. Le Dentu presented a patient in whom he had successfully practised stretching the lingual nerve for neuralgia of the face with epileptiform convulsions. The pain was located in the temporal region, auricle, lower jaw, and the left side of the tongue; it had lasted for 5 years, but in the last few months it had so increased in severity as to be insupportable. M. Le Dentu reached the nerve through the mouth, held the tongue aside and gently raised the nerve above the mucous membrane with a small hook for a few moments. On the second day the patient was able to sleep. Thirteen days after the operation the pain had entirely ceased and the patient was able to eat and sleep well. M. Le Dentu said that he had previously in another case practised, with success, resection of the auriculo-temporal nerve for neuralgia. M. Polaillon said, that three months before, he had stretched the inferior dental nerve for violent neuralgia, and the patient had been free from pain ever since.—*Am. Journal Med. Science*, January, 1882.)

Dr. Drake of this city was the first, as far as I know, who practised nerve stretching in Canada. The case was one of acute tetanus in a Swede aged 28, produced by running a rusty

nail into the foot.—(*Canada Med. and Surg. Journal*, Vol. V.) The left sciatic nerve was cut down on the posterior border of the gluteus maximus muscle and stretched. There was amelioration of the spasms for a few hours, but they soon returned more violently than ever, and the man died 12 days after the operation from exhaustion. This operation was performed August 26th, 1876.

Dr. Norman McIntosh of Gunnison, Colorado, reports in the April number of *American Journal of Medical Science*, a case of sciatic neuralgia of sixteen years standing which had resisted all ordinary treatment. The paroxysms lasted from five to six weeks, during which time the patient could neither eat nor sleep. The sciatic nerve was stretched and complete relief followed, and four months after the operation there had been no return of the pain.

Billroth, of Vienna, recommends a subcutaneous nerve stretching in sciatic neuralgia, by extending the leg and flexing the thigh forcibly on the pelvis.

Dr. J. Cavafy of St. George's Hospital, London, in the *British Medical Journal* for December 10th and 17th, 1881, in an article on nerve stretching in locomotor ataxy, gives an account of 18 cases besides his own, where this method of treatment was employed for locomotor ataxy. The cases are derived chiefly from German and French sources. In four cases the ataxy was cured (three of Langenbuch's and one of Esmarch's). In eight cases the ataxy was diminished; in four there was no improvement. In one case, patient died 15 days after from pulmonary embolism. In the greater number of the cases the pains were removed or at least greatly alleviated by one operation; but in three cases they subsided only in the territory of the operated nerve, while in one they disappeared from the part operated on, but increased elsewhere. The improvement seems to have been permanent in the majority. Dr. Cavafy comes to the conclusion that the operation is applicable, especially to early cases where pain is a prominent symptom; but he would not hesitate to employ it in later ones, especially as the operation has not been followed by injurious results beyond temporary

paralysis, and this very rarely. The wound is often slow to heal, as in his own case, where it was unhealed after six weeks.

Dr. Julius Althaus (*Brit. Med. Jour.*, January 7th, 1882), referring to Dr. Cavafy's paper, says that it may not be out of place to mention that at least five fatal cases have been recorded, due to nerve stretching in locomotor ataxy—one by Socin (mentioned by Dr. Cavafy), another by Langenbuch, who originated the operation; a third by Billroth and Weiss; a fourth by Berger and a fifth by Benedict. In most of the cases the cause of death appears to undue violence in stretching, whereby the medulla oblongata would appear to have received a shock. Dr. Althaus goes on to remark that the operation cannot be considered a slight one, and we must be careful not to conceal the risks attending it from the patient and friends; also that undue violence and stretching should be avoided, and where there is the least suspicion of an affection of the medulla, such as asthma and certain cardiac and respiratory diseases, the operation should not be resorted to.

*Medullo-Arthritis.*—Mr. J. Greig Smith, Surgeon to the Bristol Infirmary, in a lecture published in the *Lancet* of Dec. 24th and 31st, 1881, on Medullo-Arthritis, proposes to name the two forms of so-called white swelling of joints, which are commonly called strumous, as follows:—The one where the inflammation commences in the synovial membrane, *synovio-arthritis*; and the other, where it commences in the pink marrow of the cancellated ends of long bones, *medullo-arthritis*. He proceeds to remark that the pink marrow in the cancellated ends of long bones belongs to the lymph-glandular class of organs, and probably discharges most of the functions of lymphatic glands. In disease of bones in persons of a strumous habit, it is this pink marrow which is affected with a form of inflammatory disease, similar to that found in strumous diseases of lymphatic glands in connective tissue. The inflammatory products are of the same histological type, they show the same sluggishness, and have a like tendency to undergo caseous metamorphosis. There is this difference, however, a strumous gland has room to swell, and if it suppurates, its contents perforate the skin and so are

discharged. But it is not so with bone glands. They are bound down by a bony shell, and the swelling results in compression and strangulation; an outlet is forced where there is least resistance, and it is for this reason the inflammatory products in the ends of long bones take a most dangerous course—through the articular cartilage into the joint cavity. Suppurative synovitis is set up, which generally leads to complete destruction of the articulation and even to the loss of the patient's life.

After describing synovio-arthritis, he gives the symptoms of medullo-arthritis, and states that it may be distintinguished from the synovial form by the intense starting pains, by percussion round the joint causing pain, and by the great tenderness during any sharp movement. In the synovial variety the pain is not a prominent symptom; the joint has a pale, smooth, sometimes glassy and lustrous skin, and large, blue veins course over it. In medullo-arthritis the skin is not pale, but a dingy red; instead of being smooth, it is rough and mottled, and frequently covered with long hairs, &c. He believes if the pathological condition of medullo-arthritis is recognized sufficiently early the progress of the disease may be nipped in the bud; and that if we can reach the inflammed marrow and remove it, we ought to cure the patient. Even after suppuration has taken place, the treatment he advises is better than excision. He relates two cases of advanced medullo-arthritis, both at the lower end of the femur, in young girls, where, after making an opening in the condyles and gouging out with a Volkmann's spoon the cancellated tissue of both condyles and inserting a drainage tube, the best results followed. In the first case, after several months, the cavity filled up, and the girl now walks about without the slightest lameness. In the second case, after first trying simple drainage of the joint, it was determined to remove the whole contents of the condyles. At the time of writing the child was progressing most favorably, but had not commenced to walk. In this case it is probable a permanent stiffness of the joint will remain. Both cases were treated antiseptically. Mr. Smith says that this operation will be most frequently performed in morbus coxæ, because the hip joint is most frequently affected with me-

dullo-arthritis. In medullo-arthritis of the hip, he taps the great trochanter a little above and posterior to its anterior inferior angle. The opening is made with a gouge, keeping carefully in the centre of the neck of the femur. He drills through this, through the epiphysal cartilage, and taps the marrow inside the head of the bone; if the bone is soft here, it may be scooped out; if not, it ought to be left; the incision in the skin is closed, antiseptic dressings applied and left on for ten days, at which time complete union will probably have taken place. As the gouge approaches the epiphysal cartilages care must be taken to handle the gouge gently, as any roughness might break off the diaphysis and set it loose in the joint.

In *Lancet* of Dec. 10th, 1881, Mr. G. A. Wright, F.R.C.S., reports a *case of pulpy disease of the knee*, treated by erasion, on the lines already laid down by Prof. Lister. On Jan. 22nd, 1881, an incision was made as for excision of the joint, but not dividing the ligamentum patellæ. The synovial membrane, which was thick, pulpy and very vascular, was cut and scraped away, and some of the cartilage removed at the margins; a softened cavity in the outer tuberosity of the tibia was gouged out, and the articular surface of the patella was scraped. The whole of the diseased material was removed as far as possible. The wound was closed with silk ligatures and an India rubber drainage tube inserted. The limb was packed in a Gooch's splint. On February 5th the wound was healing without suppuration, and on February 16th the wound had quite healed; except on the second day, the temperature had never reached 100°. The knee was dressed seven times in all. On the 21st the splint was removed, and passive movement began. On the 28th the joint was fully flexed under chloroform, and one adhesion gave way; passive movement was kept up, and on March 9th the child was sent out with full range of movement of joint and free from pain. When last seen, May 27th, she could walk, run, kneel down on the bad leg, and flex it to its full extent without pain or difficulty. The patella was freely movable. The operation was performed antiseptically. This certainly seems too good to be true, and is a great improvement on the operation of excision.

*New (?) Treatment of Varicocele.*—Dr. R. J. Lewis, in the *Phila. Med. Times*, Nov. 5th, 1881, recommends the excision of the redundant scrotum as a radical cure for varicocele. The excision should embrace a portion of the anterior and inferior part of the scrotum; a clamp is used to fix the skin before cutting, and is also kept on whilst the metallic sutures are applied. Dr. Lewis has not seen hemorrhage follow the operation. The wound is then dressed with carbolized oil, and a perineal bandage is somewhat tightly applied. (*Amer. Jour. Med. Sc.*, Jan., 1882.)

This is merely a revival of Sir A. Cooper's operation, which is fully described in Guy's Hospital Reports (Vol. III) for 1838. Scissors were used to cut off the redundant scrotum, and the parts united by ordinary silk ligatures. Every case reported did well, and healed without a bad symptom. But this is by no means a radical cure, and is only advised where there is great pain. It relieves the pain, but does not cure the varicocele; in fact, it acts in much the same way as a well-fitting suspensory bandage.

*Sponge-Grafting.*—D. J. Hamilton, M.B., Pathologist to the Edinburgh Royal Infirmary, has contributed a valuable series of original observations on the above subject in the *Edinburgh Medical Journal* of November, 1881. In an article on the "Process of Healing," published in Vol. XIII *Journal Anat. and Phys.*, 1879, Mr. Hamilton endeavoured to show, experimentally and otherwise, that the vessels of a granulating surface are not newly formed, but are simply the superficial capillaries of the part which have become displaced. They have been thrown upwards as granulation loops by the propelling action of the heart, because the restraining influence of the skin has been removed. He goes on to remark that one of the great functions of the skin is to counteract the tendency which superficial vessels have to be pushed outwards, and a similar restraining action is conferred upon the deeper branches of the fasciæ which surround them. These hold the vessels in their proper places, and overcome the tendency to this peripheral displacement.

It was whilst getting the information for the paper above mentioned, and also when subsequently studying the subject of organization and healing still further, that Mr. Hamilton was struck with the similarity of the process of vascularization, as

seen on a granulating surface, and that which occurs when a blood-clot or a fibrinous exudation is replaced by a vascular cicatricial tissue. The author states that blood-clot or fibrinous lymph plays merely a mechanical and passive part in any situation, and that vascularization is not due to the formation of new vessels, but rather to a displacement and pushing inwards of the blood-vessels of the surrounding tissues. Being convinced that the blood-clot or fibrinous lymph, before organization takes place, was just so much dead matter in a tissue, it occurred to Mr. Hamilton that if he could employ, instead of blood-clot or fibrinous lymph, some dead porous animal tissue, it also would, in the course of time, become vascularized and replaced by cicatricial tissue. He thought that sponge, if placed under proper conditions, would fulfil the object in view, for the following reasons: 1. It is a porous tissue, and would imitate the interstices of the fibrinous network in a blood-clot or in fibrinous lymph. 2. It is an animal tissue, and, like other animal tissues, such as catgut, would, if placed under favourable conditions, become absorbed in the course of time. 3. It is a pliable texture, and can be easily adjusted to any surface. If, therefore, the blood-clot or fibrinous exudation merely acts mechanically in the process of organization, there is no reason why sponge or other porous texture should not similarly become vascular and organized. The first experiment was performed on a female patient suffering from several ulcerated wounds in different parts of the body. The largest of these was situated on the outside of the left leg. It was circular in a shape, and five inches in diameter by from a half to three-quarters of an inch in depth; the edges were indurated, slightly raised, and in some places undermined. There was a cellular tissue slough at the deepest part of the wound, which gave to the whole ulcer a putrefactive odour. The rest of the floor was in a granulating condition.

The usual antiseptic dressings were first applied, but very little progress was made in its contraction, and on the 3rd of August, 1880, Mr. Hamilton filled the wound with one large piece and several small pieces of very fine sponge prepared by dissolving out the siliceous and calcareous salts by means of

dilute nitro-hydrochloric acid, subsequently washing in liquor potassæ and finally steeping it for some time in a 1 to 20 solution of carbolic acid and water. The sponge in the central part of the wound rose a little higher than the edges, so that at its greatest thickness it must have measured from half to three-quarters of an inch by five inches in width. The sponge was made to fit the wound very accurately and was inserted beneath the undermined edges. A piece of green protective was placed on the surface and above this, lint soaked in a 1 to 20 solution of carbolic acid and glycerine, with a little tincture of lavender in it. The whole was covered by a pad of boracic lint. An ordinary bandage was applied. The patient was kept in bed, with the limb at absolute rest. Next day it was redressed. There was not any marked putrefaction odour. On the 5th of August there was a distinct putrefaction odour. It was dressed as formerly, but the wound was irrigated with 1 to 40 carbolic solution. This was continued throughout the progress of the experiment, and at one time when the putrefactive odour became great a 1 to 20 solution was employed. Oakum was now used as a top dressing over the glycerine and carbolic acid. The sponge at its shallowest part appeared to be slightly red in one or two points, and the undermined edge had extended for a short distance further over it. On the 6th of August the sponge was irrigated as before, and was gently squeezed so as to remove any waste materials which were contained in it. The edges of the sponge were now adhering to the granulating surface. Five days after the commencement of the experiment the wound seemed to have shrunk a little, there was very little putrefactive odour. The thin parts of the sponge felt firm and their interstices were evidently filling with organizing tissue. If the surface was pricked it bled freely. Healing seemed to be going on from the edges to the centre and upwards. The edges of the sponge seemed to be dissolving as it became infiltrated with the new tissue. Its surface was covered by a grayish colored pellicle, very much like that seen on the surface of wounds healing under antiseptics. From this time onward the sponge rapidly became filled with organizing tissue, until on the

29th of November there was only a small piece of it seen on the surface. As soon as it became vascular and filled with new tissue the epithelium spread over it.

Mr. Hamilton remarks that in the healing of this wound instead of the edges and surrounding skin being drawn downwards and towards the centre, the reparative material had in reality grown up and so filled the vacuity caused by the cellular tissue slough. The first experiment showed that if sponge be placed over a granulating surface its interstices will, in course of time, be filled with blood vessels and cicatricial tissue, just as in the case of a blood-clot, and that ultimately the whole sponge will disappear in the wound, leaving an organizing mass of new tissue in its place. It further showed that even where the wound continues in a putrescent condition organization will go on. In the case of blood-clot, putrefaction tends to destroy it; in that of the sponge, its texture being more resistent, it does not seem to make much difference.

Four other experiments were made of healing wounds by sponge grafting on the human subject, all of which were successful except the last, which was a case of old necrosis of the lower end of tibia communicating with a wound of considerable size. There was no granulating surface at any part, and no attachment of the sponge occurred after several weeks, for the simple reason that the part could not furnish sufficient embryonic tissue to pierce the sponge and organize it.

Other experiments on animals were carried out in Vienna for Mr. Hamilton, by Dr. Woodhead, in Prof. Stricker's laboratory, for the details of which I must refer the reader to Mr. Hamilton's article. A minute account, accompanied by beautiful plates, is next given of the microscopic appearances of the various stages of the organization of this new tissue. The first thing noticed, in all the experiments made, is the infiltration of the interstices of the sponge with a certain amount of fibrinous lymph. The canals do not become occluded by it, but fibrin with entangled leucocytes is found adhering to the sponge framework. The line of demarcation between the fibrinous and organizing layers was in all cases quite distinct, and in no

instance was organization found to commence within the interior of the sponge among the primarily effused lymph. Without exception the cicatricial elements grew into the sponge in the form of a distinct layer springing from the tissue to which it had become attached, and from this attachment blood-vessels also arose.

The blood-vessels first become much distended and unduly tortuous. When the loops of blood-vessels reached the sponge framework, they were pushed into it, and always maintained the character of complete capillary loops. He was unable to detect anything like free, newly-formed and pointed offshoots. No evidence of sprouts from their sides could be detected after the most searching examinations. Mr. Hamilton noted a significant phenomenon supporting the theory that blood-vessels were pushed into the sponge as loops, viz., that when the convexity of a loop came in contact with the sponge framework, instead of one of its pores, a curvature formed on the vessel at the opposing point, and on each side of the obstacle there was pushed a secondary loop similar to that from which both had arisen. The blood-vessels which have been pushed outwards from the neighbouring parts bear with them great numbers of the actively proliferating connective tissue corpuscles derived from the neighbouring connective tissues. These, he affirms, and not the leucocytes, as described by Conheim and others, are the tissue-forming cells. Mr. Hamilton says that fibrinous lymph has no more power of forming *per se* a fibrous tissue than blood-clot or a piece of sponge has. The blood-vessels are the primary, and the connective tissue corpuscles the secondary factors in the organizing process. Mr. Hamilton thinks the method of sponge-grafting is excellently suited for growing new tissue where that is insufficient to cover a part or to allow of stretching, but whether it may not have a wider range of application remains for future experience to demonstrate. The only objection seems the somewhat long time needed to organize it. Instead of sponge, charcoal or calcined bone might be employed in certain cases, as, for instance, where the formation of new bone is needed. To prevent contraction of the newly formed tissue when it cicatrizes, such a solid framework would be useful.

When speaking of the displacing action of the heart upon the blood-vessels, Mr. Hamilton asks, "Why is it that in different individuals there is such a difference in stature?" and answers, "May it not be that the cause of it, in reality, is that the propelling action of the heart is specially vigorous in those of great stature, and the resistance of the tissues slight, while in those of small stature the reverse conditions are present." "Why is it that growth goes on to a certain age?" "May it not be that the heart is relatively more powerful than the delicate stretchable tissues of youth, but as adolescence is reached, the tissues become sufficiently rigid to counteract the heart's action, &c." He says much the same thing is seen in plants. When growth is most active, the plant is in a cellular, pliable condition, and as it becomes older, and more woody fibre is formed within it, a stable condition is reached.

For a further account of this most interesting subject, I must refer the reader to Mr. Hamilton's original article, which will well repay a thorough perusal.

*Gastrostomy and Œsophagostomy.*—The operation of gastrostomy was first performed by Sédillot in 1849. Since then this operation has been practised a large number of times in England, America, and Germany. The first successful case occurred in the pracice of M. Verneuil at the Hôpital de la Pitié, Paris, in 1876. The operation was performed for stricture of the œsophagus, in a boy 17 years of age, caused by swallowing a solution of potash The previous operations had all been undertaken for malignant disease.

At a meeting of the Clinical Society of London in October last, Mr. Reeves read a paper on "Two cases of Malignant Stricture of the Œsophagus, in which Gastrostomy was performed, with a special reference to Œsophagostomy in narrowing of this tube." He said, in these two cases, he had performed gastrostomy in deference to the wishes of his colleagues, and went on to describe how he should act in suitable cases of stricture of the œsophagus. He said that malignant obstruction was most common in the upper part of the tube, and in such cases he considered œsophagostomy the preferable operation.

Even when the stricture was low down, œsophagostomy is indicated as a preliminary and exploratory operation; and, if a tube cannot be passed through the stricture, gastrostomy should be performed. Œsophagostomy is a much safer operation than gastrostomy; never, in fact, having been fatal. Mr. Reeves said it should be performed on the left side of the neck by making an incision from half an inch above the episternal notch to the level of the upper border of the thyroid cartilage. The Surgeon should stand on the left side of the patient. If possible, a sound should be passed previous to the operation; and after the œsophagus is opened, a tube with a funnel-shaped end should be passed and tied in place, and nourishment administered through it as soon as the effects of the anæsthetic have passed off. The operation should be undertaken early, before the obstruction is complete, and before the patient's strength is exhausted.—(*Lancet Report.*)

At the adjourned discussion on November 11th, Mr. Golding Bird presented brief abstracts of five cases of cancer of the œsophagus, in four of which gastrostomy was performed. In the fifth, the operation had to be abandoned owing to the occurence of œsophageal hemorrhage. He pointed out that gastrostomy was only a palliative operation and could not be judged of by bare statistics. One of his cases, a man aged 66, had lived five months, but symptoms had only existed two months before operation. In the others the histories were much longer. He said gastrostomy of itself was not a fatal operation, but that it was resorted to too late, and that the earlier operation was resorted to, the better the result. He believed in those cases which presented themselves for operation late in the disease, the stomach should be opened at the time of operation and nourishment given at once. He was distinctly opposed to œsophagostomy as a substitute. In four out of his five cases œsophagostomy would have been useless. Dilatation of a cancerous stricture high up might be fairly tried, but when in the chest it was his opinion that dilatation was more dangerous than gastrostomy itself. Mr. Durham advocated, where possible, feeding the patient through an elastic catheter, passed into the stomach through the mouth.

The catheter should only be left in three or four days, and another then introduced. He did not think that Dr. Krishaber's method of passing the catheter through the nose so good, because more disagreeable. Dr. Krishaber, at the International Congress, stated that in œsophageal stricture the catheter could remain in for an indefinite period. Dr. Douglass Powell warned the users of catheters against the dangers of the passage of instruments from ulceration. Dr. Andrew Clarke, and the surgeons who subsequently spoke, almost all advocated the use of the catheter as long as possible.—(*Abstract of Report in British Medical Journal.*)

The prevailing opinion seemed to be that catheters should be used where possible, in stricture, to dilate it, and to feed the patient; also, the passage of a catheter in a cancerous stricture prevented the constant irritation of the stricture by food, and so temporarily arrested the growth. In cases where the stricture was low down it is probable catheterism would not be successful. Where the cancerous stricture was high up and a catheter could not be passed, it is probable œsophagostomy might prove a valuable operation; but where the cancer was low down and a catheter failed to pass, gastrostomy is indicated. It was the general opinion that the operation should be performed early, but that as a rule the patient would not consent till too late. Dr. Andrew Clarke brought out the fact that the passage of a catheter required a great deal of patience, and that if the operator persevered in his efforts to pass it, he was often in the end successful.

With regard to the operation of gastrostomy, several of the speakers advised, first, stitching of the stomach to the abdominal wall, around the opening, by two circles of sutures an inch apart, and leaving it thus for four or five days before the stomach was opened.

Dr. Carl Langenbuch (*Berlin Klin. Woch.*) regards the immediate opening of the stomach as unsafe. If there be urgency he would suggest the use of an aspirator syringe and injection of liquid food in this manner. Langenbuch thinks that as soon as the difficulties of swallowing are at all pronounced the first part

of the operation should be undertaken, and that the surgeon should not wait till the stricture is impermeable. With regard to the second part, he recommends a very small opening into the stomach, so small indeed that a certain amount of force is required to get in the tube. The tube should be provided with a stop-cock, and so all escape is prevented. Before opening the stomach it should be fixed with a sharp hook to prevent puncturing the posterior wall.—(*Med. Times and Gazette.*)

Dr. P. Kraske, in the *Centralblatt für Chirurgie*, warns the profession against the danger of stitching the stomach to the wall of the abdomen some days before opening it, as the stomach contents are very liable to escape through the stitch punctures in the gastric walls. This occurs especially if there is any degree of tension. He reports a case where the escaped matter through the stitch punctures caused a fatal peritonitis. He therefore advocates immediate opening. Dr. Kraske thinks that this danger will have to be taken into account in considering the advisability of the first part of the operation being performed early in the case, as suggested by Langenbuch.

Dr. T. F. Prewitt, in a paper on gastrostomy, published in the *St. Louis Courier of Medicine*, gives a table of fifty-nine cases: forty were malignant, twelve cicatricial, three syphilitic, and in four nature of stricture not given. In the cases operated on for malignant stricture the patients lived fourteen days to six months, and one patient is still living. In the cicatricial variety six recovered, as also one where the stricture was of syphilitic origin. Peritonitis existed in only seven of the cases. Exhaustion alone is assigned as the cause of death in the large proportion of cases.

Mr. A. F. McGill, of the Leeds School of Medicine, reports in the *Lancet* for Dec. 3rd, 1881, two cases of gastrostomy. In both cases the operation was performed for malignant stricture of the œsophagus, about the back of the cricoid cartilage. In the first case the wall of the abdomen was incised and the stomach sewn to the edge of the wound by thirteen silver wire sutures; then the opening was made into the stomach four days after, the patient in the meantime having been fed with

Slinger's nutrient suppositories. Four months after the operation the patient was still alive. In the second case the patient died on the seventh day from exhaustion.

*Dupuytren's Contraction of the Fingers.*—Dr. Myrtle, in the *British Medical Journal* of Dec. 3rd, 1881, contributes an article on the above affection, in which he denies its connection with gout for the following reasons:—1. It is never met with in women, and they are quite as much afflicted with gout as men. 2. Many of the worst cases he has seen (his own among them) have not been gouty themselves, nor have they ever had a gouty progenitor. 3. Gouty remedies have no influence over this affection. 4. That the very mode of dealing successfully with contracted finger, by division, with subsequent mechanical extension, is a plan which surgeons would not readily adopt in cases of enlargement, stiffening and contraction from gouty deposit. The general ignorance of the profession with regard to the pathological changes which cause this contraction appears to Dr. Myrtle incomprehensible, especially since the various writers on this disease have so clearly demonstrated that the contraction is due entirely to changes which have taken place in the bands of fascia of the fingers and palm; that the tendons with their sheaths, the joints with their covering and ligaments, are not implicated. He describes two forms of contracted fingers:—The one, traumatic, traceable to some local injury. The other, idiopathic, generally met with after middle life; one or more fingers may be affected, the third most commonly, and the forefinger and thumb being rarely implicated. Dr. Myrtle says there is only one method of treatment, viz., subcutaneous division of constricted bands with subsequent mechanical extension, as recommended by Mr. Wm. Adams. Every fibre of the tightened band must be divided separately.

Mr. H. A. Reeves (*Brit. Med. Jour.*, Dec. 31, 1881), cannot agree with Dr. Myrtle that gout and rheumatism are not frequent causes, and he differs altogether from the statement of Dr. Myrtle that it is never met with in women. He can clearly recall five cases, and is sure he has seen at least seven or eight in women. Mr. Reeves gives the causes as follows:

1, rheumatic and gouty diathesis; 2, injury; 3, occupation; 4, heredity; 5, neurosis. Occupation may claim a large percentage of cases, as it is not uncommon in boatmen, coachmen, sailors, bootmakers, writers, and even those who have for years carried a walking stick and borne their weight on it. Dr. Myrtle believes the contraction due to a hyperplasia of the fascia, while Mr. Reeves considers it to be inflammatory.

Mr. Southam, of Manchester, has also observed it frequently in women, and considers it commonly connected with a gouty diathesis.

Mr. Wm. Adams states (*Brit. Med. Jour.*, Jan. 21, 1882), that when he published his work on "Dupuytren's Contraction of the Fingers" in 1879, he had never seen a case in women, and since that time only one case has come under his observation, that of a lady aged 66, in whom both hands were affected. He says that the affection may be of more frequent occurrence in females than has been supposed. Many cases have been sent to him as cases of Dupuytren's contraction which he excluded from that class, there being no puckering of the skin of palm or prominent fascial bands, but as a rule the fingers were contracted, because they were bent at the phalangeal articulations and could not be straightened. I have seen one case of genuine Dupuytren's contraction of the fingers in a woman aged 52, who had a decidedly gouty diathesis. The little finger and ring finger of the left hand were affected, and there was considerable puckering of the skin. I have seen but few cases at the Montreal General Hospital Out-patient department, and these all in gouty patients. I am inclined to believe that it is not a common affection in this country.

*Treatment of Fissure of the Anus.*—Dr. Mascarel proposes the following treatment, which he has used with much success in the case of those patients who fear the radical cure of fissure by forcible dilatation;—1. An enema of warm water, to which a large spoonful of glycerine has been added, is ordered to be given daily. 2. After each motion, a small pledget of lint, saturated with the following ointment, is to be introduced into the anus: ℞ Glycerine, 30 grains; oil of sweet almonds, 30 grains;

brown ointment (onguent de la mère), 60 grains. 3. After introducing the lint, care must be taken to smear the ointment well around the outside of the anus. 4. If there is great constipation, five centigrammes of powdered belladonna root should be given every night. In eight cases out of ten, fissure of the anus will be cured after three weeks or a month of this treatment. (*Le Progrès Médical*, July, 1881, quoted in *Practitioner*, Dec., 1881.)

I have found, where the patient will not consent to operative measures, or the pain of touching the fissure with a point of nitrate of silver, the application of an ointment of calomel gr. iv, opium and ext. of belladonna each two grains, to a drachm of simple ointment, as recommended by Mr. Allingham, prove often curative. The bowels, of course, should be kept open.

*Treatment of Prolapsus Ani by Hypodermic Injections of Ergotine.*—Dr. Vidal has treated successfully three long-standing cases of prolapsus ani in adults by means of injection of ergotine, a cure being effected in a few weeks. The author therefore recommends that this method should be adopted in similar cases. The method employed is to inject, by means of a Pravaz syringe, 15 to 20 drops of a solution consisting of one part of Bonjean's ergotine in five parts of cherry laurel water, every two or three days, through the anus, either into the sphincter or into the prolapsed portion of intestine. Severe burning pain follows the injection, tenesmus, lasting several hours, in many cases cramp in the neck of the bladder, and retention of urine for eight to ten hours. The author has not met with inflammation, abscess, or toxic symptoms in any of his cases. (*Der Praktische Artz*, in Nov. *Practitioner*.) Judging from the immediate effects of the operation, I think it would be hard, in this country at least, to prevail on the patient's submitting to a second injection; besides, it offers no advantages over Dr. Van Buren's method of treatment by actual cautery.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Acute Traumatic Malignancy.*—Mr. Richard Barwell, in the *British Medical Journal* of Feb. 11th, 1882, describes several cases of malignant disease rapidly following injury, to which he gives the name—Acute Traumatic Malignancy. He thinks that "under the stimulus of severe irritation, the tissue-elements which, under favourable circumstances, would assume only the additional activity necessary to repair, may take on a more prolific cell-germination, culminating in a rapid form of malignant disease in one of those forms, be it named myeloid or round-celled sarcoma, or encephaloid cancer, which consists of little else than heaped up cells and their progeny."

The first case is that of a boy aged 17, who, whilst playing football, fell on his shoulder and disabled it. This occurred on April 24th, 1875. A week after the shoulder began to swell rather rapidly, and on May 19th Mr. Barwell saw him, and then there was a swelling most marked in front, which was soft with some ovoid patches harder than the rest; the swelling did

not rotate with the bone. On May 25th the shoulder was considerably increased in size, the skin a little tense, surface white and waxy, and large veins coursing over the growth. The texture was soft and doughy, with a sense of false fluctuation. An exploratory puncture was made and a shred of tissue removed, which, under the microscope, was seen to be made up of large cells with brilliant nuclei. Excision was advised, but was not consented to for a month. It was performed, and a round-celled sarcoma removed. The disease returned shortly after, and the boy died in about three months.

The second case was that of a stevedore aged 65, who came into Hospital for bruise of left side, due to injury from falling down the ship's hold 18 days previously. He died two weeks after admission, and the *post-mortem* disclosed malignant disease of the left pleura and lung. The new growth was an oval-celled sarcoma.

Mr. Barwell also mentions a case of malignant disease following fracture of the fibula, which many years ago was under the care of Mr. Lloyd, of St. Bartholomew's Hospital. Mr. Barwell thinks in these cases there must have been tumour diathesis, and that the local injury was provocative of a neoplasm.

Mr. H. B. Walker (*Brit. Med. Journal*, April 1, 1882), also cites several cases of acute traumatic malignancy which have come under his observation.

I remember last summer seeing an example of this affection in the Montreal General Hospital. A girl aged 18 was admitted for ununited Colles' fracture. It appears that some weeks before she had broken her right radius about an inch from the wrist, and it had been put up in the usual way, but soon after became painful, and on examination, the seat of fracture presented considerable swelling, rather soft in character, and fluctuating. The lower end of the upper fragment was expanded, and cracked when pressed. The swelling increasing, she was recommended for admission to hospital under Dr. Roddick. On admission, the tumour was incised and found to be myeloid in character, and the arm was amputated below the elbow. The case did well, the stump healing rapidly. This is the only case I can recollect

having seen. The fact that malignant disease may follow injury or irritation has long been known, as, for example, epithelioma of the lip and tongue following the continued use of a short clay pipe (in those probably having the tumour diathesis), chimney-sweep's cancer following irritation from soot, blows on the breast, and probably repeated attacks of mastitis, causing malignant disease, &c. It is probable that an injury which in some would produce merely an ordinary inflammation, in others would, owing to certain misplaced germinal cells being stimulated by the increased nutrition into embryonal activity, cause a malignant growth. The additional point, however, which Mr. Barwell wishes to bring forward is that such growths occasionally assume an acute form.

Mr. Butlin, in a letter to the *British Medical Journal*, March 18th, 1882, directs attention to the fact that many cases of sarcoma of the bones, apparently directly due to injury, are already on record, and gives several references; and he himself has seen at least six cases which have pursued an acute course, and a still greater number a chronic course. He agrees with Mr. Barwell in believing that there is a distinct tumour diathesis, and says the evidence in favour of this theory is as strong as that which supports the belief in a strumous or rheumatic diathesis.

Mr. Harrison Cripps relates two cases of malignant disease following traumatism which came under his notice when registrar of St. Bartholomew's Hospital, and remarks, with reference to a traumatic causation, that thousands of blows may be struck on bones without causing acute pyæmic necrosis, just as we see that similar injuries are rarely followed by malignancy. He goes on to say that in cases of acute pyæmic necrosis, the primary subperiosteal abscess often teems with minute organisms, and yet there has been no lesion of the skin by which such bodies could have been admitted from the external air. Thus he is driven to the conclusion that the poisonous organism must have been circulating in the blood, in which it is innocuous; but when the extravasation caused by the blow allowed it to become stationary, it multiplied, producing all its poisonous effects. He asks whether the explanation of traumatic malignancy might not

lie in some organism accidentally circulating in the blood, becoming the cause of active disease by infecting the cells of a part, when left stationary, by effusion into the tissues —(*Brit. Med. Journal*, May 6th, 1882.)

*Abortive Treatment of Buboes.*—Dr. Morse K. Taylor, assistant surgeon U.S. army, in a paper in the April number of the *American Journal of Medical Sciences*, says that for nearly seven years he has treated commencing buboes by simply injecting the glands with a solution of carbolic acid. He has treated nearly 150 cases of various forms of lymphadenitis arising from specific and non-specific causes; and where he has seen them before the formation of pus was well established, he has not failed to arrest the process immediately, and allay the pain in a few minutes. Ten to forty minims of a solution of 8 to 10 grains of acid carbolic to the ounce of water is injected. Some care is required to insure certainty in reaching the central portion of the gland, and Dr. Taylor has found it better to wait until the gland has attained some size, and its stroma has become sufficiently distended to admit of free permeation of the injection to all parts of its structure. He also advises numbing the skin of the gland with ether spray before injecting, so that the gland may be firmly held to determine its size and to ascertain the depth to which the needle must penetrate to reach its central parts. The average time patients treated by this method have had to forego their usual avocations has not exceeded three or four days. Some twenty cases (successful) are given in detail. When pus has already formed, Dr. Taylor aspirates and then injects carbolic acid solution, and applies compression by means of a bag filled with shot or sand, with an intervening layer of oakum or absorbent cotton. Under this treatment the bubo rapidly disappears, and there is no need of the knife or poultices. For the axillary and cervical regions, he finds that compression can be most easily kept up by means of a potato trimmed to fit the location and enveloped in a strip of thin muslin.

I have several times arrested suppuration in buboes by accurately applied strips of belladonna plaster. This relieves the pain, and often, by the pressure which is used, arrests suppura-

tion. Dr. Taylor's plan, however, is so simple, that if others find it as successful as he, it bids fair to become a recognized and favourite form of treatment.

*Treatment of Fractured Patella.*—Mr. Jonathon Hutchinson holds that in fractured patella the separation of the fragments is not caused by the muscles: repeated observation has convinced him that it is always caused by, and in proportion with, the effusion into the joint. If there be no effusion there is no separation. Mr. Hutchinson says that when the muscle is at rest it is always relaxed, and when relaxed there is no reason why the upper fragment of the broken bone should not come easily down to the other, and, in fact, that it always does so when there is no effusion. Spasm of the muscle may of course cause separation at the moment of the accident, but as soon as the limb is in bed at rest its agency ends. If the effusion is the cause of the separation of the fragments, get rid of it as quickly as possible; the effusion may be blood or synovia or a mixture of the two. If it occur immediately after the injury it is probably blood, and these cases, Mr. Hutchinson says, are most difficult to treat, for blood is more slowly absorbed than synovia. The treatment of both kinds of effusion is the same, viz: a vigorous application of cold. The ice-bag and spirit lotion are the best measures according to Mr. Hutchinson, who says that if by these means you can get rid of the swelling in 8 to 10 days you will have a good chance of bony union. When the effusion has been subdued the bones should be brought together with oblique strips of plaster fixed in the notches of the splint. The limb should be extended from first to last on a well-padded back splint, and the leg kept elevated; after being bandaged the limb should not be touched for from six weeks to two months, when the patient should be allowed up, using a patellar apparatus, however.

Mr. Christopher Heath while agreeing with Mr. Hutchinson as to the cause of the separation of the fragments (*British Medical Journal*, March 25th, 1882.) carries the treatment further than Mr. H., and does not hesitate to aspirate the knee-joint, both in cases of fractured patella and injury of the joint without fracture. If the joint be aspirated a few hours after

the accident, the blood being still fluid, can be readily withdrawn. Having emptied the joint Mr. Heath does not hesitate to apply at once a plaster of Paris bandage over an envelope of cotton-wadding, and he allows the patient to go about with crutches as soon as the plaster is dry. If he sees the case before there is effusion, he at once applies a plaster of Paris bandage, and allows the patient to move about.

This method of treatment which Mr. Heath adopts is certainly a great improvement on the old one of clumsy apparatus, and prolonged rest in bed, when atrophy of the quadriceps is certain to ensue, and it is some months before use of it is regained. The most successful result of fractured patella I have ever seen was in a case where before effusion took place the leg was put up in a plaster of Paris bandage, and after a couple of days the man allowed to go about with crutches. The bones were separated by a very short interval, and of course the union was fibrous, but the man had perfect use of his joint. Dr. Hamilton of New York uses a back-splint of leather or gutta-percha, or gum shellac cloth (the latter preferred). It should reach from the middle of the thigh to two or three inches above the heel; a roller of cotton is then turned round the leg and splint to within three inches of the knee, and another from the upper end of the splint to within three inches of the knee. While an assistant approximates the fragments, the surgeon should make two or three turns with a third roller around the limb and splint, close above the knee, after which the roller descends below the knee, and a number of circular turns are made close below the lower fragments, which turns should approach each other in front till the whole patella is covered. The heel is left elevated or suspended. Dr. Hamilton does not believe in evaporating lotions, but says the swelling usually goes down in a day or two, and then the patella bandages should be tightened daily as required by over-stitching the oblique turns. At the end of four weeks the apparatus should be removed and the limb bent gently daily, after which the splint should be re-applied and the patient allowed to go about with crutches.

With regard to the union of the fragments, some surgeons

deem it necessary to always get bony union, and Mr. Lister frequently wires the fragments together. Now the belief is getting abroad that bony union after all is not the most desirable, but that patients who have good fibrous union have better use of their limbs than those with bony union, and besides the tendency to refracture is less. Mr. Hutchinson says he is by no means an enthusiast as to bony union. Dr. Hamilton decidedly prefers ligamentous. Mr. Heath remarks that the reason bony union is less advantageous than ligamentous is that the patella contracts adhesions to the external condyle. No doubt we are more apt to have ankylosis with bony union than with ligamentous, and for this reason the great Pott abandoned apparatus; he considered that position alone approximated the fragments sufficiently.

*Iodoform in Surgery.*—Iodoform has now taken a recognized place as one of the most valuable antiseptics. It may be used in the form of powder or iodoform wool. As a powder it is most useful in the treatment of local sores, sinuses, &c. Its powers of lessening suppuration are remarkable, and under its influence an unhealthy sore soon takes on a healthy action. The iodoform wool is difficult of preparation. It is made by heating eight parts of iodoform with 88 of ether; in four pints of this mixture half a pound of absorbent cotton is soaked for a short time, and the wool is afterwards placed in a drug press; when dry the wool contains about 10 p.c. of iodoform, and is ready for use. The objection to the wool is that an irritating powder is spread over the room, and its odour is very disagreeable to many people. The former tendency is overcome by adding a little glycerine to the ether, and the latter is modified by the addition of eucalyptus oil. The wool should be stored in air-tight boxes. It is very useful as a dry antiseptic dressing and is much used at present in Germany. After an amputation the stump may be dressed, after sewing the wound with catgut or silver wire, and inserting a drainage tube, by properly applied pads of this wool kept in position by gauze bandages, the dressing may often be left on for ten days without change, and the drainage tube and stitches (if of silver wire) removed in the first dressing. The wound is,

in a large percentage of cases [illegible]ve united by first intention.

This mode of dressing gives us all the requisites for the rapid healing of wounds, viz., rest, elastic pressure, antisepticism, and drainage. Before applying the wool pads, iodoform may be dusted on the wound. In Germany, where it has been used most freely and in large quantities, some cases of poisoning have occurred, characterized by elevation of temperature and an erythematous eruption, and albumen in the urine. The Germans use it in wounds of the mouth, and pack it in cavities in the form of a paste made with resin. Some fatal cases have been described by H. Henry. According to Mikulicz of Vienna, the use of iodoform gives brilliant results in strumous diseases, and also in lupus after the epidermis has been removed with caustic potash. I have found it of the greatest benefit in gangrenous and sloughing wounds seen after crushing injuries; also in foul ulcers of the leg. The best way to treat foul ulcers is to dust on iodoform powder thickly, cover this over with oiled silk, over this place a pad of absorbent cotton, and bandage carefully and firmly. Here, again, we have the benefit of elastic pressure, with asepticity. In the treatment of soft chancres, its superiority to every other application is generally admitted, and its application is quite painless. Its odour is objected to by many, but it may be controlled by keeping a tonga bean in the box containing the powdered iodoform. Mr. W. Whitehead (*Brit. Med. Jour.*, March 11, '82,) first dries the sore and then applies with a camel's hair pencil a solution of iodoform in ether. The ether rapidly evaporates and leaves the iodoform uniformly spread over the surface of the sore. This process may be repeated several times, and when the application is dry, it may be painted over with collodion, and a pinch of absorbent cotton is applied over this. Mr. Whitehead has had great success by this method. The solution of iodoform he sometimes uses is one part to two of ether and collodion ten parts. The dressing is renewed in 24 hours.

Mr. Lennox Browne says a solution of iodoform in collodion may be made without the addition of ether, by shaking up one part of iodoform with ten of collodion. The iodoform should be

added to the collodion, and not the collodion to the iodoform, to obtain a clear solution. He uses it in glandular enlargements of the neck.

*Colectomy.*—Mr. John Marshall, F.R.S., in a clinical lecture delivered at University College Hospital on April 27th, 1882, gives an interesting account of the above operation. It was performed in a case of "chronic intestinal obstruction, the seat and cause of which could not be ascertained, even under the influence of an anæsthetic, but which was discovered, on a median abdominal section, to be due to circumscribed cylindrical growth, situated in the descending colon. Whereupon this growth was forthwith removed, through a left lateral abdominal incision, by resection or excision of the diseased part, together with small adjoining portions of the intestines. The two free ends of the bowel were then attached to the lateral wound in the abdominal walls, more or less after the manner adopted in colotomy, whilst the median abdominal section was closed by the usual deep sutures." The patient, unfortunately, only survived the operation three days, dying from a low form of peritonitis. Mr. Marshall remarks that he should approach another case of the same kind hopefully, and would make use of the left lumbar incision, as holding out greater chances of success.

Mr. Bryant, at a meeting of the Royal Medical and Chirurgical Society of London, on March 28, '82, reported "a case of excision of a Stricture of the Descending Colon through an incision made for a left Lumbar Colotomy." The operation was performed on a lady aged 50, who had suffered from complete obstruction for eight weeks. The stricture could not be felt from below. The bowel was removed by simply pulling the segment strictured through the wound and stitching each portion of the bowel, with its two orifices divided, to the lips of the wound. The stricture was of the annular kind, and involved about one inch of the bowel, and it was so narrow as only to admit the passage of a No. 8 catheter. A discussion ensued, in which it was stated that this was the first operation of the kind in British surgery. The majority of the speakers favoured abdominal incision to the

left of the left rectus muscle, as being more likely to lead to a correct diagnosis in obscure cases.

*Gastro-Enterostomy.*—Dr. Anton Wölfler, in the *Centralblatt für Chirurgie*, describes an operation to which he gives the above name. A man, aged 38, had been the subject of gastric cancer for six months, and was admitted to Billroth's wards on the 27th of September last He was weak and much emaciated, and for three months had vomited the greater portion of his food. Under chloroform, a tumour the size of an orange was felt in the pyloric region, and from the circumstance that it was movable in all directions, Dr. Wölfler was induced to make an exploratory incision, when he found cancer of the pylorus (freely movable), but in addition, the hepatico-duodenal ligament and head of the pancreas were infiltrated with the new growth. As a resection of the pylorus seemed impracticable, and as he did not wish to close the abdomen without accomplishing anything, the establishment of a nutrient fistula in the small intestine was the only thing to be thought of. The objections were obvious enough, viz., the due admixture of bile and pancreatic juice is prevented when the fistula cannot be established at the upper accessible portion of the duodenum, and the condition of the patient with such a fistula is always more or less deplorable. Accordingly, Dr. Wölfler determined to set up a direct communication between stomach and small intestine. The stomach was opened by an incision two inches in length in its greater curvature, a finger's breadth above the insertion of the gastro-colic ligament. He then made an incision the same length in a coil of small intestine (opposite the attachment of the mesentery), and stitched the edges of the wound on the gut to those of the gastric aperture. Strict antiseptic precautions were used, but no spray. The progress of the case was in every way satisfactory ; the vomiting ceased, and the patient was able to eat solid food at the end of eight days without discomfort. The external wound healed by first intention Four weeks after, the patient was well and was passing firm, brown-coloured stools. Prof. Billroth performed a similar operation a few days later for extensive pyloric carcinoma, but bilious vomiting setting in the day after the

operation, the patient only lived ten days.—(*Edinburgh Med. Journal*, April, 1882.)

*Early Treatment of Prostatic Obstruction.*—Mr. Reginald Harrison, of Liverpool, advises the early use of instruments in prostatic disease (*British Medical Journal*, March 18). To dilate the passage, he uses specially adapted bougies. The instruments are gum-elastic, two to four inches longer in the stem than usual, with an expanded portion an inch from the tip, which is made to enter the bladder. In this way the prostate is subject to pressure on the insertion and withdrawal of the instrument. As a rule no irritation is aroused. By the use of these dilators Mr. Harrison asserts that the enlargement of the prostate is so moulded as to prevent obstruction. In a few persons it becomes necessary to establish a state of instrumental toleration. In some individuals the intolerance is entirely due to the presence of unnatural quantities of uric acid in the urine.

In case of difficulty in the passage of instruments where there is *Retention of Urine* Mr. Harrison advocates tapping of the bladder from the perniæum through the hypertrophied prostate. He has devised a special trocar and cannula. The trocar is hollow, and when the bladder is reached urine flows through it. The trocar is then withdrawn and the cannula tied in. The cannula is arranged with a stop-cock, so that the urine may be turned off or on at will. A case is related in which the urine was passed through this prostatic cannula for six weeks, with the greatest comfort, at the end of that time the urine began to pass through the natural passage. The cannula was then withdrawn and the puncture rapidly healed, and urine was passed as usual through the penis. In fact nearly all the functional symptoms of enlarged prostate ceased to exist, and on examination through the rectum the gland was found to be much smaller, having rapidly atrophied after having been punctured with the trocar.

*On Digital Exploration of the Bladder through incision of the Urethra from the Perinæum.*—At a meeting of the London Royal Medical and Chirurgical Society, held April 11th, 1882, Sir Henry Thompson reported a case in which he had successfully removed a tumour of the bladder (in a man) through a

perinæal section of the urethra. The patient has been operated on some time previously for stone (by lithotrity) but without complete relief to his symptoms; subsequently some phosphatic deposit was removed by the lithotrite, at this time he seized what at first felt like a calculus, and practically crushed it under pressure, but it was evidently fixed, giving the impression of partially imparted stone. As little benefit followed this operation it was decided to open the bladder. This was done by perineal section, and on introducing his finger into the bladder and pressure being made from above the pubes Sir Henry recognized a tumour about the size of a chestnut growing from the opposite wall, coated with phosphatic matter. The mass was easily twisted off with a pair of forceps and very little bleeding followed. The patient speedily recovered and had no return of the bladder symptoms subsequent to the operation. Regarding this and other cases Sir Henry advised that in certain cases of hematuria which was clearly vesical and was not explicable except by the hypothesis of impacted calculus or vesical tumour, an incision of the membranous portion of the urethra from the perineum, for the purpose of exploring the bladder, should be made. In a paper in the *Lancet*, of 7th May, 1882, Sir Henry remarks that it is only during the last few years that he has gradually realized the fact, that it is possible, in not a few cases, to explore through a small perineal incision the whole or nearly the whole, of the internal surface of the bladder with the index finger—a necessary condition, of course, is that the bladder should be empty, and that firm pressure should be made with the right hand above the pubes. The method of operating the author describes as follows: The central incision should always be adopted, and a medium grooved staff, and a long, straight narrow-bladed knife, with the back blunt to the point, should be used. Having placed the left index finger in the rectum, the knife may be introduced edge upwards, about three quarters of an inch above the anus, with or without a small preliminary incision in the skin, until the point reaches the staff about the apex of the prostate gland, where it divides the urethra for half an inch or so and is then drawn out, cutting upwards a little in the act, but so as

to avoid any material divison of the bulb. The left index finger is now removed from the rectum and following by the groove of the staff, slowly passes through the neck of the bladder as the staff is withdrawn, when exploration is made. This operation is often of benefit in old cases of cystitis, and, as well as satisfying the surgeon as to the exact condition of the bladder, often relieves symptoms where no lesion can be made out.

*Splenectomy.*—Mr. Warrington Haward at a meeting of the London Clinical Society held on March 24th, 1882, read an interesting paper describing a case in which he had excised the spleen. The patient was a woman, aged 49, who for eighteen months had suffered pain in the left side of the abdomen, and for ten months had been conscious of an abdominal tumour, which had been steadily increasing in size, and which distressed her by its weight. When admitted into St. George's Hospital, she was rather a stout woman of good complexion, she did not look at all anæmic, and although the number of white blood corpuscles was increased she did not show any other signs of leucocythemia excepting a very enlarged spleen. The spleen occupied the greater part of the abdomen, and extended from the ribs to the groin, and from the loin to three inches beyond the middle line; no other glandular enlargements were present, nor was there ever any dyspnœa, palpitation, or hemorrhages. Pulse, temperature, and respirations were normal. It having been determined to remove the spleen, Mr. Haward performed abdominal section. An incision was made in the middle line from two inches below the ensiform cartilage to within two inches of the pubes. The enlarged spleen at once presented, and was found free from adhesion. The enlarged vessels at the hilus were clamped and ligatured in separate portions with carbolized silk, and the organ was removed without difficulty. While the wound was being closed the patient became collapsed suddenly, but was revived by artificial respiration and the injection of ether. Five hours after the operation vomiting came on, and persisting with great frefuency, rapidly exhausted the patient, who died the evening of the operation. The spleen presented to the naked eye the appearance of simple hypertrophy. The fatal result was not caused

by hemorrhage, but seemed to be due to disturbance of the great sympathetic plexuses, and the consequent shock of vomiting.

In the discussion which followed, Dr. Stephen MacKenzie raised the question whether removal of the spleen in leucocythemia was justifiable, quoting Mr. Collier's tables, which show, that though the spleen has been excised successfully in several cases, in no case has the operation succeeded when performed for leucocythemia. Dr. MacKenzie thought possibly the operation was jutifiable when the blood disease was not advanced, and the subject was a young one, as there were grounds for believing that the spleen was primarily at fault. Mr. Lucas thought a less serious operation, as ligature of the splenic artery, might be adopted if the affection were a simple hypertrophy. It would seem that for the present surgical interference in leucocythemia is narrowed down to splenectomy in selected early cases in young subjects, or perhaps to the substitution of some less formidable operation as ligature of the splenic artery.—(Report in *British Medical Journal.*)

*Surgery of the Kidney.*—The operations of nephro lithotomy, nephrotomy and nephrectomy are now considered by the surgical world to be justifiable operations. It has been established beyond doubt that *nephro-lithotomy* is a most successful operation in properly selected cases, viz., where the stone is of moderate size and single, and the kidney has not become disorganized. It is a most scientific procedure to perform this operation where stone has been certainly diagnosed by needle exploration, or where the pain and other symptoms lead one to believe there is a stone present. If left, the stone is certain to disorganize the kidney, cause much suffering, and probably death. The operation of incising the kidney (*nephrotomy*) has not proved a dangerous one, and it has been frequently demonstrated that the kidney can be easily explored through a lumbar incision, and even cut into with great safety. In cases of strumous or calculous pyelitis, the sacculated kidney can be drained through a wound in the loin and the patient freed from the danger and pain of retained matter. Nephrotomy, as an operation, is merely palliative, and,

as Mr. Lister suggests, should only be performed where the patient is too weak for nephrectomy.

Dr. Roddick lately, at the Montreal General Hospital, performed nephrotomy in a girl suffering from scrofulous pyelitis of right kidney. The incision made was the transverse one, as in lumbar colotomy, the enormously distended kidney, which could be esily felt as a fluctuating tumour, was reached without difficulty, and about 20 ounces of fœtid pus evacuated; a drainage tube was introduced after washing out the sac with a 1 to 40 solution of carbolic acid. The operation was performed under the spray. The third day after the operation the girl had suppression of urine and symptoms of carbolic acid absorption, but after this had passed away (boracic acid being substituted for the carbolic acid) the girl improved rapidly, and was sent home some eighteen days after the operation, where I have heard she has since died, her improvement being only temporary. The relief afforded by the operation was decided, and I think this operation may be fairly considered to have been successful.

*Nephrectomy*, or removal of the kidney, is a much more formidable operation than the foregoing. The dangers are much greater, many cases having been followed by suppression of urine, which by some has been attributed to the use of carbolic acid, either as spray or injection. It has also proved fatal from hemorrhage and wounds of neighbouring organs, as lung and pleuræ. It has not yet been fully determined in what cases it should be performed, or at what period. Nephrectomy has been performed for tumour, cancerous disease, strumous and calculous pyelitis. Lately Dr. Barlow and Mr. Godlee read, at the London Clinical Society, notes of a case of nephrectomy performed for calculous pyelitis. The existence of the stone had been previously diagnosed by needle puncture. The kidney was removed by abdominal section, under antiseptic precautious. After the operation, a morphia suppository was administered and the patient passed off into a quiet sleep. Next morning the temperature was high, urine suppressed, and the patient was in a semi-comatose condition, from which she never recovered. Mr. Golding Bird and Dr. Goodhart, before the same Society, re-

ported a case of nephrectomy for scrofulous pyelitis of the right side only. The incision was made in the right loin and the kidney removed. The patient died of collapse shortly after the operation. The operation was difficult, and part of the 12th rib had to be removed. Mr. Howard Marsh also reported a case of exploration of the kidney and partial excision, where the patient died in thirty hours of suppression of urine.

These cases are instructive ; in one apparently the morphia suppository had something to do with the fatal result. It also seems that partial excision of the kidney is quite as, if not more, dangerous than complete excision. Suppression of urine seems to be a very common complication. It is a question whether before nephrectomy is performed, a preliminary nephrotomy should not be tried. Now the loin is the most favourable position for nephrotomy and perhaps the most difficult incision for nephrectomy, so this would be an objection. Some hold that if a preliminary nephrotomy is performed, it much increases the difficulty of a subsequent nephrectomy. Again, it is important, in considering the advisability of performing nephrectomy, to find out whether the pyelitis is confined to one kidney, or, rather, whether the other kidney is healthy. Strumous pyelitis is rarely confined to one kidney, and therefore excision of the kidney must be a defective operation, as the pyelitis is only a small part of a general disease. These are some of the difficulties in the way which make one hesitate to perform nephrectomy. Having, however, decided on the operation, which is the best incision, through the loin or abdomen ? Certainly the abdominal incision gives the operator more room, and the surgeon sees what he is doing. I have frequently excised the kidney on the dead subject, and have been often amazed to find how much more easy it was to remove a kidney through an abdominal incision than through the lumbar one. Removal through an incision in the loin is very difficult, especially the ligaturing of the vessels entering the pelvis of the kidney, besides, in some people, the distance between the last rib and crest of the ilium is very short ; in these cases, of course, the 12th rib has to be excised, or a T incision made, both of which procedures increase the risk of the operation. The only

objection to the abdominal incision is that two layers of peritoneum are wounded; but now-a-days we are not so fearful of wounding that structure as formerly. There is another danger to which I have previously called attention,* and which may be more easily avoided by the abdominal incision, and that is where the renal artery is multiple, and enters the kidney in all parts, and also where it is double, one entering the extreme upper end the other the extreme lower end of the kidney, no artery entering the pelvis at all. Many more operations are necessarp before we can decide when and how to perform nephrectomy.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Excision of the Tongue.*—Mr. Walter Whitehead, F.R.C.S., F.R.S.E., &c., in a paper in the London *Lancet* of Oct. 22, 1881, reports 28 cases of excision of the tongue through the mouth, with only one death from the operation, that of an old man aged 69. He first performed his operation of removal of the whole tongue through the mouth, with scissors, in November, 1877. The operation is conducted as follows:—

1. The mouth is opened to the full extent with a gag. This duty is entrusted to an assistant.

2. The tongue is drawn out of the mouth by a double ligature passed through its substance an inch from the tip. This ligature is given in charge of another assistant, who maintains throughout the operation a steady traction outwards and upwards.

3. The operator commences by dividing all the attachments of the tongue to the jaw and to the pillars of the fauces, after the manner suggested by Sir James Paget, with an ordinary pair of straight scissors.

4. The muscles attached to the base of the tongue are then cut across by a series of successive short snips of the scissors until the entire organ is separated on the plane of the inferior border of the lower jaw, and as far back as the safety of the epiglottis will permit.

5. The lingual or any other arteries requiring torsion are twisted as divided. It is generally found that a moment's pres-

sure with a small piece of sponge held in a sponge forceps suffices temporarily, if not permanently, to arrest any bleeding; it is, however, regarded as desirable to twist immediately, or after the tongue is removed, every bleeding vessel.

6. A single loop of silk is passed by a long needle through the remains of the glosso-epiglottidean folds of mucous membrane, as a means of drawing forwards the floor of the mouth should secondary hæmorrhage occur. This ligature may safely be removed the day after the operation.

Mr. Whitehead recommends that the after treatment should consist in feeding the patient for the first three days absolutely and solely by nutritive enemata, satisfying thirst by occasionally washing out the mouth with a weak iced solution of permanganate of potash. Speaking should be forbidden.

This operation of Mr. Whitehead's is now quite an established one in surgery, and, for the removal of the *whole* tongue, is preferable to any other. It is easily performed, requires few instruments, and more certainly removes the whole tongue than where the écraseur is employed.

Mr. Henry Norris, F.R.C.S. (*Lancet*, May 30, 1882), in a paper on *Epithelioma and Ichthyosis of the Tongue based on the records of seventy-five cases*, gives some observations on the relative value of different methods of excising the tongue. These observations are confined to cases, twenty in number, operated on by himself. *Six* operations were done with the galvano-cautery écraseur, and in one of these the cheek was divided obliquely downwards from the angle of the mouth, after Gant's method. *Seven* were done with the twisted wire écraseur, and in one of these also the cheek was divided; in two, the twisted wire rope was passed into the mouth through a supra-hyoid incision, and in two the wire was looped round the tongue without any preliminary incision; in the remaining two cases of this series only the anterior portion of the tongue was removed. *Three* cases were operated on by the twisted wire écraseur after median division of the tongue. In *four* cases the knife or scissors were used to remove the organ.

The average period of convalescence in five of the galvano-

cautery cases was 32.4 days. The shortest, 26 days; the longest, 50 days. The sixth case died. The average period of convalescence after median division (three cases) with the twisted wire écraseur was 21 days; shortest, 16 days; longest 27 days. The average period of convalescence of five cases operated on with the twisted wire écraseur was 19.2 days. Two patients were well in 12 days; the longest 27 days. In the sixth case where the suprahyoid incision was used, a fistula remained for a year; and in the seventh case, recurrence took place before the wound was healed. In three cases where the cutting operation was performed, the average period of convalescence was $16\frac{1}{3}$ days. In the fourth case, where the symphysis was divided, the bone did not unite for five months.

Mr. Morris remarks that the amount of tongue removed does not affect the length of the period of convalescence. He does not recommend the supra-hyoid incision; he says it is not necessary for drainage, and that a fistulous opening is liable to remain. When more room is wanted to get at the base of the tongue, Mr. Morris prefers the division of the cheek from the angle of the mouth; the wound heals readily, leaves but a slight scar, and adds nothing to the risk of the operation. He considers that division of the symphysis is the most formidable and least favourable method of operating, and is only necessary when the mucous membrane on the inner surface of the jaw is affected and cannot be otherwise removed. In his earlier operations, Mr. Morris employed the galvano-cautery écraseur; this he has now discarded; the slough which follows is most offensive, and the period of convalescence prolonged. He now prefers the twisted wire écraseur, but cannot recommend any one method of operating, as the operation must be planned to suit each individual case. His recoveries after the use of the twisted wire have been more rapid, and hemorrhage is seldom or never troublesome. He considers the most important safeguard of the operation to be the passing of a stout ligature through the root of the tongue, behind the line of operation. By traction upon it, this ligature not only assists in counteracting the tendency of the écraseur to drag the cheek needles forward, but prevents the stump from

falling back over the top of the larynx. Mr. Morris says that the mortality after operations on the tongue does not amount to three per cent.

With regard to the after treatment, two points are dwelt upon: (1) feeding by the rectum at intervals of not more than four hours from the day of operation till plenty of nourishment can be swallowed; and (2) frequent and thorough irrigation, especially just before and after taking food through the mouth. Irrigation should be continued until the wound is healed. In cases in which secondary hemorrhage has occurred, half drachm doses of liquid extract of ergot and the local application of styptic colloid have been found most effective.

In the August number of this *Journal* a case is recorded where the tongue was removed for cancer by Dr. Roddick by means of the chain écraseur, combined with the cutting operation with scissors. The scissors were used to separate the tongue from the floor of the mouth, and the écraseur was then introduced through a suprahyoid incision. Convalescence took place on the 27th day. A tube was placed in the suprahyoid incision for drainage; after removal of the tube, the suprahyoid opening soon completely healed.

Mr. Henry Gray Croly, F.R.C.S., records two cases (*Dublin Journal Med. Science*, July, 1882,) of removal of the tongue, in which, before removal, he ligatured the lingual arteries by an incision extending from the symphysis to the hyoid and back to the angle of the lower jaw. The tongue was then drawn out through the incision below the jaw, as in Regnoli's operation, and removed without hemorrhage by means of a benzoline cautery. The period of convalescence is not given, but the patients recovered. I forgot to mention that the gustatory nerves were also divided for the purpose of relieving the ptyalism.

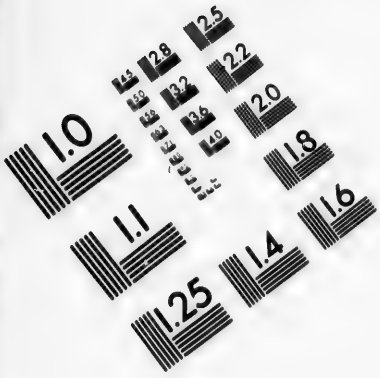
Mr. Bennett May, B.S., F.R.C.S., in a paper on *Excision of the Tongue, &c.*, (*Lancet*, June 10th, 1882), believes that, notwithstanding Mr. Jonathan Hutchinson's impressive appeal for early operation in cancer of the tongue, surgeons will not generally urge, nor will patients accept, any operation for the removal of a considerable portion of the tongue, until the other-

wise hopeless, and necessarily fatal character of the disease, is, to their minds, clearly established. In the case reported the cancerous disease was of rapid growth, and involved the floor of the mouth and lower jaw as well as the tongue. The tongue being secured by a ligature through its tip and the requisite teeth being extracted, Mr. May carried an incision through the median line of the lower lip, under the jaw, to terminate at the hyoid bone. The tissues, including the gum and periosteum on either side, were then dissected back nearly as far as the angle of the lower jaw on the left side. Holes were then drilled in the jaw outside the line of the intended section, the bone cut away with a straight saw, and the soft parts at the floor of the mouth divided with scissors. The tongue was then removed with a chain écraseur. Patient was fed by the rectum for six days; period of convalescence 28 days.

Dr. Fenwick, at the Montreal General Hospital, performed a very similar operation to this in a very similar case some six months ago. The patient recovered completely, and has since had no return of the disease.

In the *Annals of Anatomy and Surgery*, Dec., 1881, Dr. Joseph Howe records two cases of entire removal of the tongue, and describes a "safety-pin tourniquet," whose use, he thinks, will render the extirpation of the tongue an exceedingly safe and simple operation.—(*American Jour. of Medical Science*, April, 1882.)

*Treatment of Acne Rosacea.*—At the meeting of the Harveian Society, held April 27th, 1882, Mr. Malcolm Morris gave a short account of the treatment of severe cases of *acne rosacea* by scarification. He pointed out that there were two classes of cases: the one consisted of acne spots, surrounded by red patches, the nose being considerably enlarged from hypertrophy of the tissues; in the other there was flushing of the nose, erythema, a varicose condition of the veins, and hypertrophy without acne. It was in the latter class of cases that Mr. Morris advocated scarification. This condition of the nose occurred in people of feeble circulation, whose hands were generally cold, and who were easily affected by changes of temperature; in a



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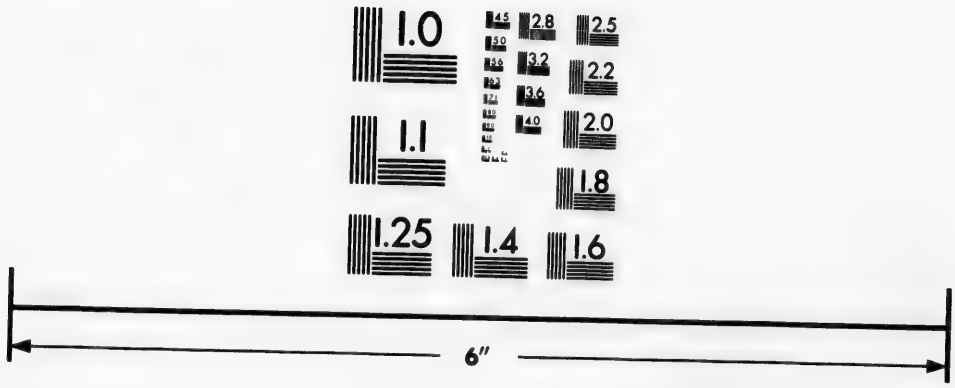

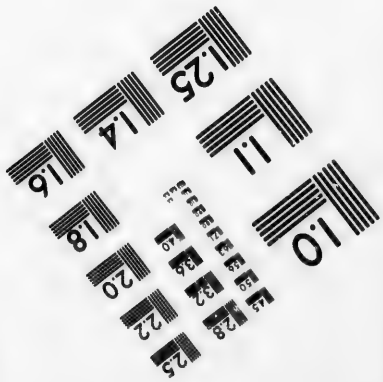


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hot room the nose itched, and caused great discomfort; when exposed to cold there was great pain. The operation of scarification Mr. Morris performs as follows: First of all, the nostrils are filled with cotton wool to make the skin tense; next all the blood-vessels are slit up throughout their length by a knife double edged at the point, then with an instrument having a number of fine blades close together, the vessels are thoroughly divided transversely; free hemorrhage follows, which must be encouraged, and is beneficial. The clots and serum are absorbed by blotting paper, and the patient is enjoined not to touch the nose for several days. The scarifications heal in a few days, and leave no scars. This operation is to be repeated a number of times until the nose is reduced to normal. Mr. Morris had scarified 28 cases successfully; one which was done in 1879 has remained well ever since.—(*Brit. Med. Jour.*, May, 1882.)

The above mode of treatment is a modification of that employed by Hebra and Volkmann. Hebra employed a double-edged lancet-shaped needle, with a shoulder 2mm. from the point, to prevent it going too far into the skin. With this instrument the vessels were punctured deeply and rapidly. The punctures were made in horizontal rows. In mild cases the repetition of the punctures usually was not necessary. In the severer forms Hebra employed Volkmann's method, viz., shaving or scraping off the inflammatory products and hypertrophied masses with a Volkmann's spoon. The operation is not a painful one. He employed this method also to remove nævi, port wine stains and superficial taleangiectasis. The epidermis only should be removed. In the mild cases without hypertrophy, and with the formation of pustules, I have found that the evacuation of the pustules as soon as formed and the nightly application of sulphur ointment prove very beneficial. The ointment should be washed off in the morning, and the nose rubbed with a soft flannel, covered with the lather of Pear's transparent soap before being reapplied in the evening. I have also occasionally seen benefit derived from the application of chrysophanic ointment, 20 grs. to the ounce.

Dr. J. H. Staines, in a paper read before the Cambridge

Medical Society, on the *Nature and Treatment of Acne* (*Brit. Med. Jour.*, June 24th, 1882), referring to *Acne Rosacea*, dwelt on the necessity of simple diet, the avoidance of alcoholic stimulants, and the use of soap and water locally. He also recommended the application as many as 12 or 15 times daily of a lotion containing precipitated sulphur, camphor, glycerine and lime water. He spoke of the advantages of local depletion, and described an instrument devised by Volkmann for producing multiple punctures. In ordinary acne he advocated the use of precipitated sulphur, in the proportion of 4 drachms to 6 ounces of lime water, with 3 drachms glycerine and a little spirits of camphor.

*New Antiseptics—Boro-Glyceride.*—This was lately introduced by Professor Barff for the purpose of preserving meat during long voyages, and is a compound of boracic acid with glycerine. Mr. Barwell first introduced it into surgery, and has used it most successfully in place of carbolic acid. He holds that it is less irritating (*Lancet*, May 13, 1882) locally, and free from the danger of constitutionally poisoning. Mr. Barwell used it of the strength of 1-20. For the last six weeks I have used it at the General Hospital as a substitute for carbolic acid in moist dressings, and have been favourably impressed with it. Wounds seem apparently to heal with glyceride more rapidly than with carbolic acid. I use it of the strength of 1-30 or 40. In several cases of severe crushing injuries of the hand where it was used, healing took place very rapidly. It is rather insoluble in water, and I am now about to use a solution of it in glycerine, diluted with water.

*Glycero-borate of Calcium and Glycero-borate of Sodium.*—M. G. Le Bon has just presented to the Academy of Sciences the above new and very effective antiseptics (*Lancet*, Aug. 5th, 1882.) Both have the advantage of being very soluble, destitute of odour, and free from all toxic action. When exposed to the air they both deliquesce rapidly, absorbing from the air an equivalent weight of moisture. Both alcohol and water dissolve twice their own weight of these salts. They are powerful antiseptic agents, even in dilute solutions; the most effective thera-

peutically appears to be the glycero-borate of calcium. It is absolutely innocuous, and can be applied in strong solution to so delicate an organ as the eye without bad result. They are both good disinfectants and preservers of meat. M. Le Bon has transmitted meat simply coated with a varnish of the glycero-borate to La Plata, and it has arrived in a perfectly fresh condition. He thinks both salts will prove very useful as antiseptics in Lister's mode of dressing wounds.

These salts, from their solubility, will no doubt be an improvement on the boro-glyceride of Prof Barff.

Dr. Geo. Thin (*Lancet*, May, 1882,) reports several cases of chancre treated by a solution of glycerum boracis, in which the sores healed with marvellous rapidity. The theory, says Dr. Thin, on which the method was conceived was that of keeping the surface of the sore saturated with a solution that would effectually prevent the development of organisms. He thinks this would prove a very suitable application for phagedæna and hospital gangrene.

*Treatment of Carbuncle by Injection of Carbolic Acid.*—Dr. Lopez Rubio records (*El Siglio Medico*, 1882,) a case of anthrax, in which treatment by subcutaneous injection of carbolic acid—a plan first suggested by Dr. Olavide—gave very remarkable results. The anthrax occurred in a man aged 30 years, and was situated in the interscapular region. It measured on first seen, approximately, 7 inches vertically by 5 horizontally, the centre being occupied by a cone of dark-coloured sloughing skin. The constitutional disturbance was considerable, the pulse being 110, accompanied by pyrexia and severe headache. A five per cent solution of carbolic acid in water and alcohol was injected, with a Pravaz's syringe, into each of the four quadrants of the tumour. Next day the anthrax had decreased about one-half in its superficial dimensions, its angry complexion had departed, while nearly all constitutional disturbance had ceased. The same treatment was continued for two days longer, when the patient had so far improved as to be able to return to his work.—(*London Medical Record*, June, 1882.)

Dr. Chas. Taylor (*Australian Med. Gazette*, Dec., 1881,)

strongly recommends the injection of carbolic acid in the treatment of carbuncle. He has treated six typical cases, all seated about the nape of the neck, and occurring in men of good bodily health and condition. Five were treated, within the first three days of their existence, by injecting pure carbolic acid into them; the sixth had been submitted to free incision before any acid was used. The five cases treated without incision recovered rapidly; the sixth lingered on through two or three weeks of extensive sloughing and profuse suppuration. Dr. Taylor injects with a hypodermic syringe five or six drops of pure carbolic acid; the skin around should be smeared with oil to protect it from any acid that may escape. Little or no pain is felt when the acid enters the tumour; the patient at once becomes comfortable, and experiences a glow of pleasing heat passing throughout it. The carbuncle rapidly aborts, discharges a small quantity of pus, and ceases to trouble or runs through a few days of active suppuration, speedily terminating. One application of the acid is sufficient, aided by the usual linseed-meal poultices, fomentations, &c.—(*Edin. Med. Jour.*, Aug. 1882.)

Dr. Peter Eade (*Lancet*, July 22nd, 1882,) treats formed boils by the introduction of carbolic acid through their openings; he considers that boils are local, parasitic and contagious, and carbolic acid destroys the parasite. He also advises that boils should, in their early stages, be destroyed by a good caustic, as nitrate of mercury, nitric acid, strong carbolic acid, or nitrate of silver.

*New means of Diagnosing Unilateral Renal Disease.*—Th. Gluck, in the *Centralb. f. Chirurgie*, says: I need only mention in passing, as being generally well known, the method of Tuckmann, Simon's catheterization of the ureters and Hegar's ligature of the ureter from the vagina. By none of these are we guarded against unpleasant surprises during the course of the operation, or rather during the autopsy which soon follows it. A method in cases where nephrotomy is thought necessary, by which the presence of active renal parenchyma on the presumedly normal side might be determined with ease and celerity, would certainly tend to favour the general extension of this salutary operation.

I would suggest the following mode of procedure: The morbid kidney is exposed by means of a small incision made in the usual position at the edge of the sacro-lumbalis muscle. The ureter is then isolated and its lumen temporarily obliterated either with a ligature or a small clamp. A solution of some salt, which is rapidly excreted by the kidneys (potassium iodide), is then injected subcutaneously, and its presence in the urine is, after a short time, ascertained by the ordinary tests. If the result of the chemical examination be negative, the temporary ligature is removed from the ureter and the wound closed as after an ordinary exploratory incision. But should traces of the salt be found in the urine, we are assured that, functionally, active renal substance must still exist in the supposed normal kidney, and extirpation of the organ affected may be proceeded with. Two conditions may diminish the value of this test. (1) For reasons easy to understand, a lecotropal kidney would not be diagnosed with certainty; and (2) under peculiarly complicated anatomical conditions, the isolation of the ureter might be attended with great difficulties. I believe, however, that the ureter will in general be easily secured, so that the method is worthy of trial in the class of cases referred to.—(*Edin. Med. Jour.*, Aug. '82.)

*The Coat Sleeve Method of Performing the Circular Amputation.*—Mr. Richard Davy, of Westminster Hospital, describes the above novel operation in a clinical lecture (*Brit. Med. Jour.*, June 17th, 1882), and gives three cases to illustrate its advantages. He dissects back, as in the circular amputation, a sleeve of integument 3 to 6 inches in length. Then the soft parts are divided to the bone, and the periosteum carefully peeled off up to the point the bone is to be divided. After trimming off any projecting tendon or nerve from the stump, and tying the vessels, the skin sleeve is tied up with a piece of tape (very much like a bag of flour is closed up), the tape is passed through a cylinder, and the ligatures are allowed to hang through the crucial slit on the face of the stump. The wound may be treated with or without dressings. Mr. Davy prefers none. The surgeon must carefully watch that the tape does not strangulate the skin sleeve. Should the stump become œdematous or any necessity

for drainage arise, then a drainage tube may be inserted into the face of the stump. According to Mr. Davy, the advantages are: (1) The conservation of an abundance of skin, subcutaneous fat and arelor tissue, which, by mechanical arrangements, are utilized so that the scar is reduced to a minimum, and the cushions to a maximum. (2) The total abolition of sutures, which, however necessary, are invariably painful in removal; and the sutures, as previously employed, necessitated a linear cicatrix on the face of the stump. (3) The facility granted to the house surgeon for restraining, and to the patient for escaping, secondary hemorrhage. (4) Freedom from pain, exclusion of air, and adaptability for perfect drainage. (5) The symmetrical appearance and utility of the stump.

I should fancy that one great disadvantage of this operation, notwithstanding all said in its favour by Mr. Davy, would be the amputating of the limb higher up than was necessary to procure a sufficient amount of skin to make the "coat sleeve." Mr. Richard Davy is well known through his practical and racy "Surgical Lectures." His ingenuity is manifested by his operations for club-foot, his hammock suspension, and above all his lever for controlling hemorrhage in hip joint amputations. In this connection I may remark that during July last three cases of amputation of the right hip joint were performed successfully in England with the aid of Mr. Davy's lever. A case where Mr. McLaren, of Carlisle, operated, lost two ounces of blood; a second, under Mr. Cowell's care, at the Westminster Hospital, lost three ounces; and a third case, where Mr. Paul Swain, of Plymouth, performed amputation, lost but one ounce and a half.—(*Brit. Med. Jour.*, Aug. 12th, 1882.)

*Strange Urinary Calculi.*—Dr. Bennett, at a recent meeting of the Dublin Pathological Society (*Dublin Medical Journal*, 1882), showed some specimens of calculi presented to the Museum of the School of Physic by Surgeon-Major T. Robinson, of the Bengal army. The first example was a primary calculus of remarkable shape, not unlike a mushroom. It consisted of oxalate of lime, mixed with crystalline phosphate. The nucleus consisted of a bullet of moderate size, altered from its original

shape; the whole calculus weighed nearly an ounce. The bullet had entered through the right gluteal region and ilium to the bladder two years before removal.

Dr. Bennett remarked that several similar examples of rare interest are in the Museum of the College of Surgeons, Dublin, and were presented by Mr. Colles and Mr. Cusack. In Mr. Cusack's case the bullet has very little stone about it, and was removed two years after the receipt of the injury.

In the session of 1878-9 a subject was dissected in the anatomical rooms of McGill University,* in whose bladder was found an ounce bullet. It was partially encysted, and in parts coated with a thin covering of phosphates. Unfortunately, the track of the bullet could not be made out, as the dissection had gone too far before its discovery. The bullet was not at all altered in shape, and was one of the old "Brown Bess" variety, 16 to the pound. As the man had died in hospital of some lung affection, I was able to find out that he had been a soldier, and went all through the Crimean war, so that probably the bullet had remained in his bladder for 22 or 23 years.

It is a remarkable fact that bullet wounds of the bladder are much less dangerous than bayonet or knife stabs, or injury from fracture of the pelvis.

*A New Method of Detecting Stone in the Bladder.*—Mr. J. McK. Davidson (*Lancet*, July 1st, 1882), has devised an instrument for detecting stone in the bladder, which he terms a lithophone. An ordinary sound and about two feet of Indiarubber tubing is all that is required. One end of the tubing is slipped over the sound after it has been introduced into the bladder, and the other end held closely to the ear, and the bladder explored. Mr. Davidson says that the advantages are as follows:—(1) A small calculus can be detected, which would otherwise be overlooked. (2) Practice will enable the operator to distinguish the size and character of the calculus readily. (3) It is probable that a somewhat similar ear connection with a lithotrite will enable the operator to find and secure small fragments more readily and so crush them. I should suggest that instead of

*This specimen is now in the Medical Museum of the University.

holding the tubing to the ear an ear piece be fitted to it, and that it be used as in Politzer's method of inflating.

Dr. Geo. C. Duncan, formerly of Canada, some years ago published in the *Edin. Med. Jour.* a method of detecting small fragments of stone in the bladder. He coats a sound with a preparation of lamp black, and when it comes in contact with a fragment a scratch is made on the blackened end of the sound. I had the pleasure of seeing some experiments made of this method on the cadaver in the dissecting room of McGill University, and certainly was very favourably impressed with what it could accomplish in detecting very small fragments of stone.

*Radical Cure of Varicocele.*—Dr. Angelo Negretto records (*Gaz. Med. Ital. Prov. Venete*) two cases of varicocele, in which he succeeded in obtaining a speedy and permanent cure by intravenous injections of chloral hydrate. In the first case the patient was aged 28; the varicocele was situated in the left side, turgid and painful. Dr. Negretto injected with a Pravaz's syringe, in four different places, a solution of chloral-hydrate, of seven grains to the ounce. At once a small hard knot could be felt in the lumen of the vein. Within a few hours a mild attack of orchitis supervened, which yielded readily to ordinary remedies. The injection was repeated in one or two other spots, with the same result of again inducing orchitis, which, however, was of the mildest possible type. Six days later all visible traces, both of the operation and the varicocele, had disappeared. Along the course of the spermatic vein a few hard, small, and indolent nuclei could be felt, which corresponded to the seat of the punctures. The author remarks that in this case the obliteration of a few branches of the spermatic vein had evidently been sufficient to effect a cure. The second case occurred in an individual aged 23, in whom variocele had existed six years. Five injections were used, with the result of producing a clot in the vein, followed by slight orchitis, with severe pains radiating from the spermatic cord over the pelvis generally. A week after the last operation the cure was complete; and as the patient never returned, the author believes it was permanent.—(*London Med.*

*Record*, May, 1882.) This method needs to be tested and tried in a greater number of cases before any deductions can be drawn as to its usefulness. In every case the orchitis produced may not be so mild as in the two reported, and the inflammatory affection of the veins injected with chloral hydrate may not always be so harmless.

Mr. Reginald Harrison (*Lancet*, March, 1882) describes a method of operating for the radical cure of variocele, which has given him the best results. He exposes the cord by a vertical incision about an inch in length, and separates the most prominent varicose veins. These are each tied in two places with a catgut ligature. Three or four of the larger veins are so treated; the smaller ones are destroyed by a few light touches of the thermo-cautery. The operation is conducted antiseptically, no sutures are introduced, and the wound is left to heal by granulation. He has been performing this operation for some years, and is not aware of an instance in which there has been a return of the varicose condition of the veins.

*Excision of the Pylorus.*—The *Wiener Medizin. Blätter* of May 18th, 1882, contains an account of a discussion, at a recent meeting of the Congress für Innere Medizin, on the Diagnosis of Carcinoma of the Stomach and on the operation of resection for that disease. Dr. Henck of Heidelberg read the case of excision of the pylorus for carcinoma performed ten months ago by Prof. Czerny, which was briefly described by the latter surgeon at the International Medical Congress, and is recorded in its transactions. It is satisfactory to learn that the patient, who gained eleven pounds weight at the end of the sixth week of the operation, was, at the beginning of last month, ten months after the operation, quite well, with no symptoms of recurrence of the disease. Dr. Henck tabulated the clinical history of twelve resections of the stomach. One, which recovered, was performed in a case of stricture of the pylorus, following perforating ulcer. The remaining eleven were for the removal of cancerous growths; *four* of these recovered from the operation; out of the recoveries three patients are still alive and free from any recurrence; the fourth is known to have died four months after the excision, from

a return of the disease. In the discussion which followed the reading of Dr. Henck's paper, Prof. Lichtheim observed that mobility of an abdominal growth detected by palpation in the region of the pylorus was no proof that, if the growth were pyloric, there were no adhesions. In a case under his care, the swelling could be freely moved about under the abdominal walls when the patient was narcotized; yet, on opening the abdominal cavity, the pylorus was so strongly adherent to neighbouring parts that its removal was impracticable. Prof. Kuhle stated that the rapid implication of the chain of lymphatic glands in front of the bodies of the vertebrae behind the stomach, in cancer of that organ, renders many cases unsuitable for surgical treatment. Dr. Henck remarked that the same objection stands in the way of operation in cancer of any other organ. As early diagnosis is so important, Dr. Ewald asked if the members of the Congress could confirm the theory of Van der Velden that free hydrochloric acid was absent in the gastric juice in cancer of the stomach. No researches had been made, however, by those present who had some experience for the radical cure of malignant gastric disease.—(*Brit. Med. Jour.*, June 5th, 1882.)

Dr. Richter of San Francisco, in the *Western Lancet* of July, describes a case of carcinoma of the stomach, in which he performed resection. The patient died three hours after the operation, but the operator attributed this in some measure to the anæsthetic.

*Lawn Tennis Arm and Rider's Sprain.*—Mr. Henry Morris (*Lancet*, July 29th, 1882,) describes a sprain of the pronator radii teres muscle due to playing lawn tennis. This sprain, Mr. Morris believes, is the result of the frequent back stroke whereby the forearm is brought into rapid and forcible pronation. The condition is slight swelling, with tenderness on firm pressure along the course of the pronator and pain in bringing the muscle into action, but, as a rule, not otherwise. If the forearm is enveloped in an elastic bandage or firm elastic webbing, and kept at rest, the symptoms soon disappear. In the same article he also describes the "Rider's Sprain," a sprain of the adductor longus. It occurs very frequently, and the surgical instrument

maker is often applied to for some remedial support. It is caused by the horseman suddenly making a strong grip owing to his horse rearing, shying, slipping, or unexpectedly taking a jump. According to Mr. Morris, the pain at the time is often very trivial, but subsequently more pain is felt on walking. Pain is confined to inner and upper part of thigh. In mild cases a long web or leather strap, 2 to 3 inches broad, and padded, is applied. This strap is passed round the thigh and pelvis like a spica bandage, outside the breeches, and firmly fastened in front. In In severer cases, where blood is effused, the surgeon is generally consulted. This, by the application of bandages and absorbents, generally disappears after a time.

Dr. Edward Henderson (*Lancet*, July 29th, 1882,) gives an account of an accident which happened to himself when taking a small water-jump in the neighbourhood of Shanghai. The muscle on the inner side of his thigh seemed suddenly to give way, and this sensation was attended with such acute pain that for some moments he had difficulty in retaining his seat in the saddle. On dismounting he was comparatively comfortable, and acute pain was felt only on movements of adduction. When he wrote, a week after, he was still unable to ride. He says the accident is of common occurrence and well known to horsemen. When a man has once sustained this injury, he is liable to a recurrence, and sometimes permanent weakness is left behind. He thinks the accident is quite common at Shanghai, owing to the riding of China ponies being very common. These being of small size, a stronger grip is necessary to retain one's seat.

*Use of Salicylic Silk as a Dressing for Wounds.*—Dr. J. L. Gibson, Mr. Chiene's House Surgeon in the Edinburgh Infirmary, gives (*Lancet*, July, 1882,) a table of a number of cases treated by salicylic silk in the antiseptic dressing. This method is an approach to dry dressing, which "Mr. Chiene has long been aiming at." Next the wound is placed a piece of protective of as small a size as possible, merely to prevent the dressing sticking to the wound, then two or three layers of carbolic gauze wrung out of 1-40 carbolic lotion, above that a variable quantity of salicylic silk, and over all 8-plies of carbolic gauze. By thus

getting rid of the Macintosh, its poulticing action is done away with.

*Diagnosis of Hip Disease by Rectal Examination.*—Dr. H. Cazin (*Rev. de Chir.*, March, 1882,) refers to the difficulty of diagnosing the exact seat of the disease, especially in regard to the acetabulum. Abdominal palpation enables us to detect enlarged iliac glands or pelvic abscesses; but if we also examine the patient through the rectum, the diagnosis will be more sure. The hip joint, from its deep position in the tissues, is not very accessible to ordinary methods of examination, but the finger can approach it most easily through the rectum. In the cavity of the pelvis, immediately above and a little behind the obturator foramen, is a quadrilateral surface of bone, corresponding with the bottom of the acetabulum. In a child under 14, this part of the pelvis is partly cartilaginous. The Y-shaped cartilage is so placed that the area of the base of the acetabulum is divided by a transverse line of cartilage into two equal parts, and the lower half is again divided by the horizontal line of the cartilage. In examining a patient, the natural extent of the cartilage should be considered, and the two sides should be always explored for the sake of comparison. In young adult females recourse should be had, at the same time, or exclusively, to examination per vaginam. The symptoms elucidated by a rectal examination have been—pain localized to the postcotyloid surface produced by pressure; enlargement of the intra-pelvic glands, thickening of bone; depression, flexibility, mobility, destruction or perforation of the post cotyloidean surface; congestion of the soft parts and pelvic abscess.—(*London Med. Record*, June, 1882.)

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# QUARTERLY RETROSPECT OF SURGERY.

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*Bone-Setting* (so-called).—What is generally known by the above name, but which is more properly called "Forcible Extension or Movement in Stiff Joints," was the subject of two papers at the last meeting of the British Medical Association. The first paper was by Mr. Howard Marsh, F.R.C.S., and the second by Mr. William Adams, F.R.C.S.

Mr. Marsh (*Brit. Med. Journal*, October 7th, 1882) remarks that the value of manipulation in the treatment of stiff joints has of late years been attracting increased attention because it has been the fashion for many of the public to place themselves in the hands of bone-setters, and that no doubt some people are much benefitted whilst others are injured. Mr. Marsh says bone-setters are a very miscellaneous group, who resemble each other mainly in the negative point, that they are completely ignorant of Anatomy, Pathology, or Surgery. Some are blacksmiths, others are shepherds. They stand in the same relation to Surgery as herbalists do to Medicine, and have existed in the remote districts of England from time immemorial. Again, we have bone-setters residing in towns who equip themselves with the names of the principal bones and muscles, hang up a skeleton in the consulting room to show patients exactly what is wrong, &c. This class employs anaesthetics freely, making

use of daily passive movements, rubbing and shampooing, and in spinal cases they often put on a Sayre's plaster jacket. In every case the bone-setter asserts that a bone is out and that he can put it in. A patient who consults a bone-setter is merely playing a game of hazard. His fate depends on what is the matter with him. If he has a stiff ankle after a sprain, he will very likely be cured; if he has a strumous joint, he will be more or less injured, while if he has a bunion or node on his tibia, he will find himself neither better nor worse. Mr. Marsh then goes on to relate a number of cases which were injured by going to bone-setters, especially patients suffering from tumours of bone. "But," he asks, "how is it that bone-setters sometimes succeed, where surgeons have failed"? and answers, "There is a considerable number of minor ailments of and around joints, that interfere with free movement or produce pain, such as adhesions, slipped tendons, hysterical affections, rigidity of muscles, &c. These conditions . . . . have one point in common, that they may be cured by free movement." Bone-setting consists in the process of carrying the affected joint through its full natural range of movement in all directions, and especially in that direction where there is most resistance. If the knee is flexed it has to go straight, &c. In the majority of cases really little force is used, for an anæsthetic is often employed. Then, again, bone-setters acquire by practice much facility in handling and moving joints, they know how to seize a limb at an advantage, and where no anæsthetic is given, they take care to divert the patient's attention, so as to take the muscles off their guard. In most cases, very moderate force is needed to break down adhesions, and the less the force required to remove the impediment to motion the more sure the case. This fact might be clearly set before medical men, so that in future they will have less fear of doing injury by manipulation.

Manipulation is chiefly useful when healthy joints have their movements restricted by external adhesions or by rigidity of muscles, slipped tendons, &c. Joints after sprains, dislocations or fractures should not be too long fixed by splints and bandages. When joints are seriously diseased, manipulation will generally

do harm, and in cases of firm fibrous ankylosis, the restoration of movement is quite unlikely. The position of the limb may however be improved.

Joints that are fit for manipulation are those which, after injury, are cool and free from much synovial swelling, &c. Mere pain, if there is no heat in the joint, by no means forbids manipulation, on the contrary, it is a strong reason for using it. In certain cases where the diagnosis is obscure, but where there is no evidence of structural disease though the joint is stiff and disabled, manipulation under an anæsthetic often effects a cure. Some of these cases are hysterical, some are deep-seated adhesions, some slipped tendons, and some simple muscular rigidity. Manipulation must be supplemented by passive motion. Mr. Marsh ends his interesting paper by referring to the importance of attending carefully to the minor affections about the joints. By being remiss in these cases we open the door to bone-setting and we are apt to commit oversights that we cannot fail to regret.

Mr. William Adams in his paper (*British Medical Journal*, October 7th, 1882), strongly advocates the use of "Forcible Movement" in Stiff Joints. He arranges stiff joints as follows:

(1) Cases of traumatic origin in healthy constitutions, generally occurring in the adult.

(2) Cases after rheumatic inflammation of the joint.

(3) Cases after strumous disease of the joint.

(4) Cases of acute suppurative inflammation of pyæmic origin; and suppurative inflammation in the neighbourhood of, and extending to, the joint.

(5) Cases consequent on muscular contractions.

The first class of cases, as a rule, are favourable for treatment by forcible extension, and include stiff joints after dislocations, and fractures into joints or in their neighborhood, also stiffness following bruises and inflammation of joints.

Cases of the second class are also, as a rule, favourable ones for this treatment, whether the rheumatic affection be acute, chronic or gonorrhœal.

Classes 3, 4 and 5, Mr. Adams considers, are essentially

unfit for this method of treatment. In the last class, where stiffness is due to muscular contraction, forcible extension is injurious. They should be treated by tenotomy and gradual mechanical extension.

Mr. Adams deprecates violent extension, and says he has seen many accidents, such as fracture of bones, rupture of arteries, &c., follow its use. His method of procedure is as follows. In severe cases at the first operation, he uses only sufficient force to attain the least possible movement, then at successive operations, repeated at intervals of two or three weeks, he tears through the other adhesions and gradually increases the range of movement till the full extent is obtained; after each operation he applies hot water dressing, generally using spongiopiline and in the leg always makes use of weight extension. Absolute rest is essential, and in some cases he uses the local vapour bath two or three times a day. In simpler cases, a single operation will often suffice, but it is frequently necessary to repeat it three or four times.

Sir James Paget, in a Clinical lecture delivered in 1867, was the first to treat of the cases that bone-setters cure. This he did in his usual masterly manner; the lecture is published among his "Clinical Lectures and Essays." Among the affections of joints cured by bone-setters he enumerates, slipped tendons, locking of joints, especially the knee, injured joints held stiff by involuntary muscular action, stiff joints following sprains, and hysterical joints. He says, in the treatment of these affections we can learn to imitate much that is good in practice of the bone-setters. Dr. Wharton Hood in 1871 published a valuable little book on bone-setting. That bone-setters fail frequently to do any good and very often do great harm, is no doubt true, but with charlatans one success covers a multitude of failures. The victims of the bone-setter's skill rarely say much about their injuries. In many cases, indeed, the operator before commencing treatment demands written guarantees from the patient. Thus we only hear of the successful cases, the disasters being carefully concealed. There is an Italian woman in New York who has an immense bone-setting practice, and I know of several

cases that have gone to her, even from this city. Most of them being cases of hip disease were of course not benefitted, but all were guaranteed a cure, and some hysterical spines she certainly benefited. These cases, however, would be quite as successfully treated by prayer, mesmerism, or other extraordinary method. The regular practitioner is often to blame for manufacturing cases for charlatans to cure, as when after reduction of a dislocation the limb is kept too long at rest or manipulation is not practised after a Colles' fracture or a sprained ankle is kept up in plaster or starch for sometimes a month. No case of stiff joint due to ordinary fracture in neighborhood of joints or to the after effects of dislocation should be left to time to produce free movement. The surgeon should himself see the proper manipulations carried out and that the joint recovers its free range of movement. Bone-setters, in suitable cases, are less afraid of hurting the patient than is the ordinary practitioner, and although in many cases they do a great deal of harm, yet in many others their cures are very rapid, and to the public, marvellous. So the old adage is again proved true, that fools rush in where angels fear to tread.

*Reduction of Dislocation of the Shoulder.*—Every year new methods for reducing dislocation of the shoulder are brought out. M. Kocher, at the last International Congress (London *Lancet*, Nov. 4, 1882), read a valuable paper on this subject. In sub-coracoid dislocations, he asserts that the aim of the surgeon should be to open out the rent in the capsule and relax the parts of the capsule which are untorn but put on the stretch by the altered position of the head of the humerus. The rent in the capsule is on the inner side the most tense part, where it is thickened by the coraco-humeral band. The lower part of the capsule is also tense. Kocher asserts that by rotating the arm outwards, the top of the capsule is itself rotated out and the rent rendered patent: if now the arm be advanced in the vertical median plane, the upper part of the capsule is relaxed and, the head of the bone, being prevented passing forwards by the lower fibres of the capsule, enters the glenoid fossa. The following is his method of procedure. The patient should be seated,

with the surgeon on his left hand. The elbow joint is first to be flexed at a right angle, and the elbow firmly pressed against the side of the chest; then, while holding the elbow in contact with the body, the arm is to be slowly, gently and steadily rotated out until firm resistance is encountered; then maintaining this rotation the arm is to be raised forwards and a little in, and lastly to be rotated in and the hand brought to the opposite shoulder. It is stated that there is no need for anæsthetics when this manipulation is employed. M. Ceppi says this method is most valuable in old dislocations, they can be reduced without force and without anæsthetics. M. Kocher has succeeded in twelve cases of dislocations, varying from three weeks to four months old. In one case where the bone had been displaced for eight weeks, he fractured the shaft of the humerus in attempting reduction, and six weeks later, when the bone was united, failed again. This patient was seventy years of age.

This is certainly a very simple method of reducing dislocations of the shoulder, and is well worthy of a trial by surgeons. The fact that anæsthetics may be dispensed with is much in its favour, as in no operation have they, especially chloroform, been so fatal (why it is not known), as when used to cause muscular relaxation for the reduction of dislocations of the shoulder. The method much resembles that employed now almost universally for dislocated hips and is based on the same principles. Lately, I have used Sir Astley Cooper's method of operating with knee in axilla, with success, when I did not wish to give an anæsthetic.

Mr. James E. Kelly, F.R.C.S. Ireland, has lately advocated a method of reducing dislocations of the humerus (Dublin *Jour. Med. Science*, Sept. 1882), which in his hands has proved most successful. It is as follows: First the patient should be placed on a firmly fixed hard couch, which ought to be about three inches lower than the great trochanter of the operator. The patient should be placed as close as possible to the edge of the couch, on his back with his head low. The operator then places the injured arm at right angles to the body and standing against it, with his side to the patient and his hip placed firmly, but not

roughly, into the axilla, he folds the arm and hand of his patient closely round his pelvis and fixes the hand firmly by pressing it against the crest of his ilium; then the operator (with the patient's arm round his pelvis and his hip pressed into the axilla) turns himself rapidly so that his back is against the side of the couch. Mr. Kelly says one of the greatest advantages of this operation (which is more intelligible when the illustrations are seen) is the ease with which a surgeon can reduce almost any dislocation without assistance or anæsthetics. The scapula is fixed by being between the couch and the patient's body. This method appears very simple and easy of performance. The difficulty of having the proper couch always at hand would sometimes interfere with its employment.

Mr. Kelly has also employed a similar method for reducing dislocation of the hip, a full description of which may be found in the Dublin *Journal of Medical Science* for October, 1882. In the *Canadian Journal of Medical Science* for December, a writer describes a case of dislocation of the shoulder, in which Kocher's method signally failed, but Kelly's plan was entirely successful.

*Radical Cure of Hernia.*—The question of the most suitable operation for the radical cure of Hernia is still unsettled. Most of the operations are more successful in the hands of the originators than of any other, and no method has fulfilled the promises which accompanied its announcement to the profession. One method which according to report was always successful, is that practiced secretly by the late Dr. Heaton of Boston. Before his death he gave his method to the world in a little book published in 1877, and edited by Dr. Davenport. Dr. Heaton had for years treated herniæ by injecting solution of oak bark into the hernial ring to arouse sufficient inflammatory exudation to close the rings and then applying a peculiar bandage. Ten days rest in bed was all that was required. He also, in irreducible herniæ, made them reducible by daily manipulating the tumour and thus breaking down the adhesions. According to his book he often made these cases reducible in two or three days and then injected his fluid. Other cases of omental herniæ again he cut down upon and removed a portion, broke down the

adhesions between the sac and omentum, and returned the mass into abdomen. Mr. Heaton never had a fatal case during the whole period of his practice which was over 30 years. Surgeons, however, who have adopted his method have had but fair success with it. In the *New York Medical Record* for Nov. 11th, is an article by Dr. Wm. T. Bull of New York on Heaton's operation. He has performed the operation 49 times on 40 patients without any serious disturbance, but only in twenty-one can he report the ultimate result, the remaining nineteen have not been seen since leaving the hospital; of the twenty-one cases traced, five have been cured, seven improved, four temporarily improved, and five have not been improved at all. With one exception, all the operations were for inguinal hernia. Dr. Geo. W. Gay of Boston has operated twenty-three times, with the result of four cured, eight relieved, and three unrelieved.

At the end of his paper, Dr. Bull quotes and endorses Dr. Gay's general conclusions as to this operation, "I know nothing of the merits of the operation in other kinds of hernia, but in the one under consideration (inguinal), I can but conclude that it is safe. It is not very painful, it is not very difficult to perform, it does little harm even if it does no good. It will cure a certain number of cases and relieve others." Dr. Bull from his experience feels justified in recommending the operation, and he is sure that in another series of twenty cases he could greatly improve his record—and he hopes that his report of the operation will incite the profession at large to study its advantages.

Dr. Bull, who is a very able and skillful surgeon, deserves great credit for the way he has recorded his cases, although his success has not been so great as others, as, for instance, Dr. Joseph H. Warren, who *now* asserts he never has a failure, in his first series of cases he had *some* failures which he considered due to "imperfect instrument and crude injecting fluid," or Dr. H. S. Greene, of Kansas City, Mo., who had 91 cures out of 97 operations. It is certain that Dr. Bull's statistics are perfectly to be relied upon. Enthusiasts in any operation or mode of cure are very apt to look through rose-colored glasses and see cures where an impartial observer, such

as Dr. Bull, would only see improvement. Perhaps one reason Dr. Bull had not a greater proportion of cures is that he was satisfied with both Heaton's instrument and fluid, and did not invent a new instrument or a more effective injecting fluid!! This method of treating hernia by injecting the sac is an old one having been first introduced by Velpeau. Another of the recent operations for the radical cure of hernia, is that of Mr. William Dunnett Spanton. Mr. Spanton first described his operation at the meeting of the British Medical Association of 1879; since then he has contributed various papers to the Medical Journals narrating cases and describing his operation. The operation is performed with an instrument something like a cork screw, but with a flat point, so as to pass through the fibrous structures, without doing much violence to them; it is broader near the point than at the handle, so that as it is screwed onwards into the boundaries of the canal it approximates them to each other. The same preparation of the patient is made as for Wood's operation, by shaving the skin, incising it, and separating it from the subcutaneous tissue to such an extent as may be necessary to permit the invagination of the latter. The rupture having been reduced, the left forefinger is passed into the scrotal wound, pushing before it sac and scrotal fascia high up into the inguinal canal, so that the finger can easily make out the condition of the abdominal rings and the surrounding structures. The invaginated tissues being so held by the finger, the spermatic cord being protected by the finger, the point of the screw is, with the right hand thrust through the skin of the groin, so as to pass through the conjoined tendon at the internal ring in such a way, that the point comes against the tip of the left finger. The screw is next made to transfix the sac and fascia held in the inguinal canal, so as to pass across to the external pillar subcutaneously, a turn is then given to the screw so as to push it through the internal pillar of the external ring and again across to Poupart's ligament, the point emerging through the scrotal fascia at the wound, thus the sides of the hernial canal are approximated throughout, and the plug of invaginated tissue is firmly held in position while consolidation

is taking place. The handle of the screw then lies flat on the abdomen, the point is protected by a ball of india-rubber, and the scrotal wound closed by a suture of catgut, there is no hemorrhage. The screw is removed in the the 9th day, dressings relinquished in about two weeks, and at the end of a month the patient is allowed to get up, the parts being firmly consolidated. In sixty cases in which Mr. Spanton has operated (*Annals of Anatomy and Surgery, Oct.* 1882) all are now living, and in a large proportion of them a permanent and satisfactory cure has been affected, while in others the patients are so much improved that some who could not wear an effectual truss are now able to do so quite comfortably. In a small proportion the result has been almost nugatory. If a continuous ligature is preferred, the screw with a large eye at the point is passed in the manner described above, then threaded with a ligature when the point appears through the scrotal opening, and the screw gradually withdrawn upwards, the ligature following its track and occupying its place. In order to keep the ligature tight each end is fastened to a glass rod which lies in the groin until the parts are consolida.ed (in ten to fourteen days usually) the ends are cut off and the ligature remains. When this method of ligature is used operating under carbolic spray is desirable; but with the screw Mr. Spanton does not use the spray. The most satisfactory cases are those of congenital herniæ in the young, and the operation, says Mr. Spanton, is especially adapted for those cases in which the hernial aperture is large and the sac bulky, or when the congenital rupture is of old standing. This operation, which is a modification of Wood's and Wutzer's, is, according to the author, much less dangerous. All the cases operated on were of the inguinal kind. Mr. Spanton thinks that the wide-spread prejudice which prevails both amongst the profession and the public against operative interference in all cases of hernia, except when strangulated, is being rapidly overcome under the new era of antiseptic surgery. Many surgeons now cut down on the hernial tumor, reduce it and pass catgut ligatures through the pillars of the ring, so as to bring them together. By this method, Dr. H. O. Marcy

of Boston, Mr. Mitchell Banks of Liverpool, and others have had considerable success. Mr. Banks, at the last meeting of the British Medical Association, reported 30 cases in which he had cut off the sac and stitched the pillars of the ring together. There was no fatal case and only two failures, fifteen cases were completely cured, and did not require a truss. Dr. P. Kraske of Halle reports, in the *Centralblatt fur Chirurgie*, No. 26, 1882, two cases of congenital scrotal hernia, in which Prof. Volkmann operated for radical cure. He remarks that the operation of exposing the pillars of the external abdominal ring, scraping their edges and bringing them together with catgut ligatures is only applicable to cases where the hernia is reducible, or in cases of irreducible hernia in which the obstruction is situated in the neck of the sac. The hernial sac itself must be destroyed to make a complete cure. If the sac can be isolated it may be ligatured, but as the sac in congenital hernia also forms the tunica vaginalis, its complete removal is out of the question. Volkmann's practice in these cases is as follows: 1, If the neck of the sac can be isolated, a ligature may be placed around it, the pillars of the ring brought together by sutures, and the interior of the sac washed out and drained. Simple transverse section of the sac or partial excision should be practised. 2, If the sac cannot be isolated, it should be treated with Wahl's suture or plugged with a stump of omentum, and then the sac should be washed out and drained. In old patients one should consider the advisability of castration. 3, Where there is incomplete descent of the testicle, if the sac can be isolated, it should be cut off. If it cannot be isolated, then castration should be performed.—(*Abstract from London Med. Record*, Aug. 1882.)

*Removal of Portion of Intestines.*—Dr. Wm. Fuller (late of Montreal, and now of Grand Falls, Michigan), reports in the *New York Medical Record* of Oct. 14th, 1882, several cases of the above. The first case was of strangulated femoral hernia in a woman, where on cutting down, the knuckle of intestine was found to be gangrenous. The intestine was divided a little beyond each extremity of the slough, and a double linen ligature

was placed around the mesentery. The mesentary was divided beyond the ligature, and with it five and a half inches of the bowel removed. The two cut ends of the intestine were brought together by a continuous ligature of carbolized shoemaker's thread. The ends of the thread were cut off and the bowel returned to the abdomen. The sac was cut off and a drainage tube placed in the wound. The dressing consisted of flannel cloth wrung out of hot water and applied over wound and lower part of abdomen; this was frequently changed. Immediately after operation vomiting ceased and the general condition improved. On the fourth day she had a natural stool. Thenceforth her recovery was uninterrupted, and in six weeks she was about doing house-work.

Another case is also reported where four inches of intestine were removed from a child for invagination. The invaginated portion was felt through the rectum, it was drawn out and cut off and then returned. The child recovered.

A third case is related where omentum was cut off and the bowel returned in an operation for strangulated femoral hernia. Next day flatus was passed through the wound and a drainage tube was inserted. Patient had a natural stool on eighth day, and afterwards her recovery was uninterrupted.

M. Roser (*Centralblatt fur Chirurgie*) reports a case of resection of the intestine for acute femoral hernia in a female where death took place in 48 hours with all the symptoms of ileus. The autopsy disclosed the presence of a valve-like narrowing at the sutured spot; the gut below the suture was quite empty. On further examination it was seen that a swelling of a fold of the mucous membrane of the jejunum in combination with the sutured inversion of the edges of the wound in the gut had produced the obstruction in question. This was attributed to a double row of ligatures which he had employed, eight internal and six external. These Roser thinks should not be employed in suture of the jejunum, but to obtain complete inversion of the serous membrane, he would advise that the lower mucous fold of the jejunum (which in transverse section usually becomes everted) be dissected off circularly in front of the stitch.—(*Edin. Med. Journal*, May, 1882.)

Credé of Dresden (*Deutsche Med. Wochen*, June 10th, 1882) reports a case of successful extirpation of the spleen for *cystic degeneration*. Patient was a male aged 24. Spleen removed through an abdominal incision. In 17 months patient left perfectly well. During convalescence no increase of size in the lymphatic glands could be detected, nor was there any disturbance in the marrow of the bones, but an inflammatory swelling of the thyroid gland occurred during the fourth month.—(*American Journal of the Medical Sciences*, Oct., 1882.)

*Treatment of Tonsillitis.*—Dr. Edward Mackey (*British Medical Journal*, Oct. 14th, 1882) thinks the treatment of tonsillitis by the salicylates is not so widely recognized as it should be. The value of this treatment was first pointed out by Mr. Hormazdji. He recommended twenty grain doses of the salicylate of soda. Dr. Mackey gives it in ten grain doses every two or three hours. In all the cases treated the pyrexia was much lessened and great relief experienced by the patient almost immediately after taking the remedy. Dr. Mackey also recommends a lotion of two drachms of salicylate of soda to eight ounces of water as a very efficient remedy for the severe pain of gouty joints.

Dr. E. Staver (*Phil. Med. News*, Nov. 18th, 1882) recommends the application of powdered bicarbonate of soda to the inflamed tonsils by means of an insufflator. The fever rapidly declines and with it the discomfort.

Dr. Henry describes (*New England Medical Monthly* for June) a number of cases of hypertrophy and ulceration of the tonsils which he has cured by the use of iodoform in the form of spray. He dissolves the iodoform in strong sulphuric ether. This he sprays on the tonsils by means of a spray producer of his own, having three tubes, one turned down, one straight and the other turned up. The posterior part of the tonsils is sprayed with the turned down tube.—(*London Medical Record.*)

Dr. Fraenkel (*Verhadl. der Berlin. Med. Gesellsch.*, Bd. xiii., p. 129), says *Catarrhal Angina* or *Tonsillitis Lacunaris* in the great majority of cases, subsides without treatment, so that our object can only be to shorten or render it less severe. The use of astringents, such as nitrate of silver, he considers

useless, as the disease lies mainly in the crypts of the tonsils, which the astringent does not reach. The same is true of gargles and of inhalations, while the former, in addition, frequently themselves cause unpleasant sensations in the throat. Tne use of emollients gives frequently much relief. Dr. Fraenkel has tried submucous injections of a carbolic acid solution, so as to be sure of reaching the crypts, but has seen no benefit from them, neither has he seen any good results from chlorate of potash, which is so often useful in stomatitis. Of guiacum, recommended strongly by Dr. Morell McKenzie, he has had no experience, nor has he had any experience of tincture of aconite, which last remedy he thinks has been borrowed from homœopathic sources by English physicians. Ice and cold applications are to many most grateful, while to others they are absolutely intolerable. For some months he has treated all his cases with quinine or salicylate of soda. Of 15 cases treated with large doses of quinine, not one has lasted longer than 48 hours, the usual average being two to five days. He gives three doses of about 4 grains of quinine within an hour at night. Although quinine shortens the disease, it does not in certain cases prevent peritonsillar abcess. The *rationale* of the action of quinine, Dr. Fraenkel does not pretend to understand.—(*London Medical Record*, Oct., 1882.)

Mr. Kenneth Millican (*London Lancet*, July, 1882) agrees with Dr. Atkinson's statement that *Tonsillitis* generally depends on two causes, great mental anxiety and irregular meals. Dr. Atkinson does not believe (*Lancet*, August 26th) that Acute Tonsillitis is the direct result of cold, but he has often found it associated with masturbation.

I have myself noticed that Acute Tonsillitis is occasionally seen in the newly married, and is connected in some way with sexual excitement. During the last two years I have had four cases of severe Acute Tonsillitis in newly married women and two cases in newly married men. Probably this cause would come under the head of Anxiety. There is perhaps, after all, truth in the old theory that there is some connection between the tonsils and the generative system.

The treatment I have found most successful is the application of an ice poultice around the neck and the administration of minim doses of aconite every two hours. Lately I have had good success with salicylate of soda, it often cuts short the disease and nearly always alleviates it.

Dr. Gordon Holmes, in article in *London Lancet* for Nov. 11th, 1882, on the *Treatment of Enlarged Tonsils*, recommends excision with Fahnstock's Tonsillotome. He does not recommend the operation in the acute stage, as he says it is by no means uncommon to see even mild cases of subacute or chronic tonsillitis in which a considerable swelling undergoes spontaneous involution in the course of a month or two. Such instances are very apt to mislead the practitioner into the belief that a cure has been wrought by the aid of some really impotent local application. "It is also," he says, "interesting to observe that in a series of such attacks where the subsequent involution is always less and less complete, we can perceive the origin of chronic tonsillar hypertrophy." He dissents from the theory that the removal of the tonsils has some adverse effect on the generative system.

If excision is objected to by the patient or his relatives, he recommends repeated cauterizations of the enlarged tonsils by the solid nitrate of silver or chloride of zinc. Thin pointed sticks of these should be pressed into the lacunæ, or orifices of the follicles, which are easily seen and are of large size in a hypertrophied gland. In this way we can attack the heart of the gland in a most efficacious manner. Small sloughs form, which are soon discharged and thus the tonsils are hollowed out in one direction while being contracted by subsequent cicatrization in another. Two or three channels in each tonsil can be cauterized daily or on alternate days, and thus a comparatively large surface can be acted on with very little suffering to the patient.

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Mr. Charles Roberts, F.R.C.S., in an article in *London Lancet*, Sept. 10th, 1882, on "*Some Deformities of the Body incident to the period of Girlhood*," remarks that Orthopœdic Surgery as a speciality is a great evil both to the profession and the public. The specialist who concentrates all his attention on a narrow field of study and practice is tempted to exaggerate its importance, and to analyse and disintegrate his facts till he loses sight of their relation to and dependence on each other; while, on the other hand, the general practitioner is disheartened and repelled by the apparent complication of the subject, and is induced to hand over to the specialist many cases which he is quite competent to treat, or, as is often the case, to undervalue the importance or deny the existence of many deformities. The author says no deformity of a child's body gives rise to so much alarm to parents, or is the subject of greater diversity of treatment among medical men, as lateral curvature of the spine, and, this is due he believes to an imperfect acquaintance with its

origin. Specialists are accustomed to treat lateral curvature, knock-knee, and flat-floot as distinct deformities, while in truth tney are all links in the chain of one deformity. Mr. Roberts thinks in all cases lateral curvature is due to the loss of lateral balance of the body in the upright position, and is an effort of nature to maintain the centre of gravity of the body and support the head and shoulders in the position which requires the least expenditure of muscular effort. The paralysis, wasting, or loss of a limb, or shortening of one of the legs by disease of a joint, rickets, knock-knee, or flat-foot in growing children will produce lateral curvature, and these are its chief if not its only causes. He does not think it a deformity owing to general debility or to awkward sitting position. The curvature thus produced is antero-posterior or round-shoulder. It is almost peculiar to girls verging on puberty, is found in the strong and healthy as well as in the weak and delicate. It is less common among the labouring classes than among the rich and well to do. He is satisfied, after a careful examination of the subject, that acquired lateral curvature in girls is due to the change of position of the lower limbs resulting from the development of the pelvis from the infantile to the female type a year or two before the accession of puberty. At puberty the knees in women are brought closer together, and the peculiarity in her gait in running is due to the fact that she has to move her knees round each other and to throw the feet in a succession of small semi-circles. A little additional strain will convert this condition into knock-knee, and by throwing the weight on the inner ankle the arch of the foot is quickly broken down and flat-foot is produced. This deformity is exceedingly common among women, and a French *savant* has lately quoted it as a proof of the physical inferiority of woman to man. To a slight extent flat-foot may exist in all women, and Mr. Roberts suggests that it may be Nature's plan to promote what anthropologists call marriage by capture. To a large extent, however, flat-foot is the result of civilization, and he says that the highly arched in-step and the everted foot are peculiar to civilized peoples. Both conditions owe their existence to the wasting of the muscles

which flex the toes and foot by the constant use of tight shoes. It is owing to this that Europeans have small ankles and large calves, of which they are so proud. High heels also assist in producing this deformity by removing the centre of gravity forwards. In treating deformities of the spine and legs incident to healthy girls, it is obvious, says Mr. Roberts, that attention must be directed, in the first instance, to correcting the deformed knees and feet. On the very first signs of the arch of the foot giving way, the girl should wear flat-soled well-fitting boots with India rubber or felt pads inside to support the arch, and special exercises favourable to the development of the flexor muscles should be undertaken. Support to the arch of the foot prevents knock-knee and lateral curvature. If knock-knee should come on, it can be corrected by the temporary application of long splints, especially in bed at nights. No apparatus is necessary for the curvature of the spine in its earlier stages, as it will disappear on restoring the lateral balance of the body. Much walking and standing should be avoided and short but vigorous gymnastic exercises substituted, and, when possible, the recumbent position assumed. Sitting on the ground or on a sofa in the cross-legged Oriental position serves to expand the pelvis, evert the knees and invert the ankles and counteract all deformities, while sitting on chairs with the legs crossed, directly favours them.

This very interesting article of Mr. Roberts is full of most useful ideas, and should be read carefully in the original by every practitioner interested in the health of the female sex—but, like all men with a hobby, Mr. Roberts rides it to death. That all cases of lateral curvature are due to flat-foot is rather a sweeping assertion, and, as far as my experience goes, not an exactly correct one. If flat-foot produces lateral curvature, and lateral curvature is more frequently seen in the well to do classes than in the labouring classes, how does it happen that flat-foot is so frequently seen in the labouring classes? In my experience it is more common in these, and this I hold is due to their often being compelled to carry weights about the age of puberty when the ligaments are relaxed, the system taxed by the momentous

changes going on at that time, and the feet having to carry increased weight. How is it, again, we do not see lateral curvature in boys, yet flat-foot is not uncommon among them? Anatomists have always held that the large calf in European races is due to the less prominent os calcis requiring more leverage power and so more powerful muscles, and the slender calf in dark races is due to prolonged heel requiring the less leverage and not so powerful muscles—thus there is always a constant relation between the size of the calf of the leg and the length of the heel. The highly arched instep is not peculiar to civilized people. The North American Indian, as is well known, has a very high arched instep: although, as a rule, he does not go bare-foot, still the play of the muscles is not interfered with by the mocassin he wears to protect his feet.

*On the Treatment of Glandular Inflammation.*—It is now four years since Kapesser (an army surgeon in Darmstadt) described his method of treating glandular inflammation by the inunction of soft soap. One of the first observations he made was in the case of a badly nourished scrofulous little girl, whose neck was immensely swollen and discharged copiously fœtid pus from 6 to 8 fistulous openings, there was also corneal ulceration, and no improvement by previous treatment. Recollecting a case in which, by ordering inunction of soft soap for scabies, the phenomena of scrofula disappeared together with the scabies, Kapesser adopted this method again with such success, that in four weeks the unsightly swellings nad been reduced to a few small easily movable glands about the neck, and the inflammation of the eye had subsided, leaving only slight haziness of the cornea. When the treatment was discontinued, the child returned to its bad condition, and when treatment was resumed improvement rapidly followed. Recently Kapesser has gone a step further, and treated phthisical patients with pleuritic exudations, hæmoptysis, night sweats, &c., in a similar manner, with the result of cessation of the pathological processes, increase of body weight and return of the capacity for work.

Beetz, who used this method in Von Ziemssen's clinic at Erlangen in 1873, can corroborate Kapesser's observations.

In addition to scrofulous tumors, he has used it in the lymphadenitis of adults, and finally in every case of subcutaneous inflammation, using different preparations of soap as the case required. He says a whitlow, if not already too far advanced, yields very promptly to the influence of warm applications of spiritus saponis viridis (a solution of two ounces of soft soap in one ounce of alcohol). But one of the most satisfactory of affections to treat is bubo, and since Beetz has introduced his treatment, he has never found it necessary to treat buboes otherwise. For the last nine years his treatment has been as follows:—For chronic glandular indurations or abcesses in places in which it is difficult to apply dressings, he uses inunctions in the evening with green soap which is washed away the next morning, and repeated during three or four days with a subsequent interval of a day or more according to the sensitiveness of the skin. For acute glandular inflammations, whitlows, and abcesses in easily accessible positions, linen rags are steeped in spirits of green soap, applied to the part and covered with gutta percha tissue, these must be accurately applied by the surgeon, and not left for the patient to apply himself, there will be no tedious suppuration by this process; a very small abscess may form in a bubo thus treated, but there will be no trouble in walking. Hausmann and Kohlmanns speak even more strongly than Beetz. Kohlmanns reports cures of cases of caries of the sternum and tarsal bones by the inunction of soap rubbed in twice a week in the evening. Soft soap cleans the skin by being split up into acid and basic salts by abundance of water. The excess of alkali in these salts combines with the fat of the skin, forming soaps which can be washed off by water. The caustic potash softens the skin and acts better when in the form of a fomentation, the tension of the surrounding parts is relaxed, blood-stasis does not go on to diapedesis of the white corpuscles. Sinitzins has shown that in addition to softening the skin, soft soap dilates the blood-vessels and thus checks the inflammation, the spot in which there is most pus has not the tension around it as before, and the pus can easily push through the softened corium (*London Med. Record*, Aug. 1882). Prof.

Senator considers that amid the many new remedies introduced, some of the old have fallen undeservedly into disuse, among these especially soft soap (*Berl. Klin. Woch*, No. 38, 1882). He has used inunction of soft soap in numerous cases with most distinct benefit, viz., in chronic non-scrofulous glandular swellings, indolent syphilitic glandular swellings, and in serous exudations, including the exudations in synovial cavities. He cannot come to a definite conclusion as to the *rationale* of the action, whether it is the massage employed, or the irritation produced, or the alkali absorbed, but the fact of the increased absorption under this treatment he considers undoubted (*London Med. Record*, Oct. 1882.)

The treatment of skin diseases by the inunction of soft soap, was a favorite one of the late Prof. Hebra of Vienna. I have been much pleased with the success of this mode of treating glandular enlargements, and, in the few cases I have tried it, have been amazed at the rapidity with which inflamed and indurated glands disappear.

Prof. Von Nussbaum, in cases of lymphatic swellings of the neck, after incision and evacuation of the pus, introduces iodoform freely into the wound with successful result. The iodoform has both a chemical and mechanical effect, setting up a local inflammation and inducing granulation of callous tissue. The iodoform should always be used as a coarse powder (*London Med. Record*, Nov. 1882).

I have found that painting lymphatic swellings with iodoform dissolved in flexile collodion (1 to 10) as recommended by Mr. Lennox Browne an excellent method. Two months ago a woman with greatly enlarged glands of the neck came to the General Hospital and was thus treated, the solution being painted on daily, after three weeks the glands were reduced by more than one half, in two weeks more there were only three or four glands to be felt, and these were not much larger than marbles.

*New Antiseptics. Peat Dressings.*—Prof. Esmarch has lately, at the suggestion of Dr. Neuber, used in his hospital at Kiel, bags of peat-dust impregnated with an antiseptic ; a small bag is placed over the wound and over this a larger bag is

adjusted. These bags are retained in place by a gauze bandage, of late, however, Dr. Neuber has been using glass bandages. The first or smaller bag is filled with peat-dust impregnated with $2\frac{1}{2}$ per cent. of iodoform, and the larger or outer bag is filled with peat-dust soaked in a 5 p.c. carbolic solution. Such a dressing may remain undisturbed for from several days up to two weeks. Prof. Esmarch has used this dressing in fifty-five cases, among which were included seven resections and osteotomies, five amputations, twelve extirpations of tumours, and two herniotomies. The results are said to be most satisfactory. In only five cases was it necessary to remove the dressings. There was one death in a case of tabes dorsalis, where the operation of nerve stretching was followed by pyæmia. The advantages of the mould are that it is inexpensive, a powerful absorbent of gases and liquids, and that it checks decomposition. —*Lancet* and *Brit. Med. Journal.*

*Naphthalin.*—Owing to the numerous cases of poisoning which have followed the use of iodoform in German and Russian hospitals, a less dangerous substance is being sought for. Fischer & Djankonow recommend Naphthalin. They say it requires a less complicated apparatus and manipulation than other substances used in dressing, and is very much cheaper. Naphthalin a hydro-carbon, with the formula $\frac{C}{10}\frac{H}{8}$, is formed in large quantities in the distillation of coal and is found in heavy oils and coal tar. It is not soluble in acid or alkaline solutions, nor in the secretion from wounds. It is freely soluble in cold ether, in warm alcohol, and strong sulphuric acid. Fischer first used these Naphthalin dressings in Strasburg, and came to the conclusion that it was a powerful antiseptic. It is a useful disinfectant for sick rooms, closets, &c. Djankonow has used it extensively and found it most useful in unhealthy granulating wounds and ulcers. The wound is first saturated with a 3 p.c. solution of chloride of zinc and then wool, dipped in Naphthalin, is laid on the wound and a bandage applied over it, then another layer of wool covered by oiled silk and lastly another bandage. Dr. Djankonow particularly recommends Naphthalin dressings for surgeons, who like himself, have to treat patients in hospi-

tals deficient in funds and with an insufficient supply of nurses. —*Brit. Med. Journal*, Nov. 25th, 1882.

*Oxide of Hydrogen.*—This has of late been much used in France. M. Pean operates in an atmosphere of oxygenated water, instead of carbolic acid. M. Baldy employs gauze and wool soaked in the peroxide. It has been successfully used by ophthalmologists, and many French surgeons use it for washing and dressing ulcers and abcesses. It was first (New York *Medical Record*, January 6th, 1883) introduced by Mr. C. G. Kingsett of London, in 1876. Much is hoped for it as an inhalation in pulmonary troubles.

*Cholecystotomy and Floating Kidney.*—Abdominal surgery is still making progress, in fact, we are only now realizing what great possibilities there are in this field of surgery. The whole or part of every organ in this cavity has been at one time or other removed, with one exception, viz, the pancreas. Mr. Lawson Tait (*Lancet*, Nov. 18th, 1882), has reported his third and fourth cases of incision of the gall bladder. The third case, a lady, aged 28, was by many eminent men, (whose names, with questionable taste he mentions), diagnosed as a case of floating kidney, but Mr. Lawson Tait has "no belief in its (floating kidney) existence as a pathological incident," having never seen such a thing, either in life or a museum, or never having met any one who has. Without difficulty he made the diagnosis of gall-bladder, distended by occlusion of the duct by a calculus. He opened the abdomen over the tumour by a vertical incision, and came at once on the distended gall-bladder, and removed a pint of glairy mucus from it with an aspirator, then laid it open and took out 80 gall stones. The aperture in the gall-bladder was then stitched to the wound in the abdominal wall, and the peritoneum carefully closed and a drainage tube left in the gall-bladder. The patient's recovery was uninterrupted and in three weeks only a small sinus was left, the patient having gained flesh and being free from pain. No antiseptics were used.

The fourth case was similar to the last; a tumour could be occasionally seen in the position of the gall-bladder, and the

woman (age 37), suffered intermittingly from severe attacks of colic. On cutting down and opening the gall-bladder, 16 gall stones were removed. The drainage tube was taken out on the fourth day, and in ten days the wound was almost healed.

Mr. Tait's opinion with regard to the occurence of floating kidneys is, to say the least, remarkable. I have certainly seen them in *post-mortem* examinations, and numberless cases of their removal or fixation are on record. The last case of fixation is reported by Dr. Weir in the New York *Medical Journal* of Feb. 17th, 1883. Landau (1881) reports 314 cases. Dr. Harris of Philadelphia tabulates 18 cases of nephrectomy for the relief of symptoms due to displaced kidney.

Dr. Wm. M. Polk, (New York *Medical Record*, Feb. 17th, 1883), reports an interesting case of *Removal of a Congenitally Displaced Kidney*, (in a girl age 19), which was felt in the left iliac fossa and caused such severe pain that it was necessary to keep her under morphia. The kidney was successfully removed and the patient lived eleven days. She passed no urine after the operation. The *post-mortem* examination revealed the sad fact that her *only* kidney had been removed. There was also absence of the vagina and uterus. This had been diagnosed before the operation.

*Extirpation of the Gall-Bladder.*—Dr. Carl Langenbuch, (*Berlin Klin. Woch.*, Nov. 1880), has indicated a method, (illustrated by a successful case) of *extirpation of the gall-bladder.* An incision is made in the right hypochondrium parallel to the lower border of the liver, and joined by a second incision running along the outer border of the right abdominal rectus muscle. The abdominal cavity being thus opened the transverse colon and small intestines are pushed aside by a large sponge and the liver elevated, so as to bring the hepatico-duodenal ligament into prominence. The gall-bladder is then easily separated from the liver by a few strokes of the knife, and the cystic duct laid free and ligated in two places with silk threads; catgut should not be employed. After removal of the gall-bladder, the wound in the abdomen is closed and the operation completed. Strict antiseptic precautions employed. The

case in which this procedure was practised, was that of a man aged 43, who for fifteen years suffered from calculous formations in the gall-bladder, healing was completed in two weeks, since then his general health has greatly improved and he has gained 15 lbs. in six weeks. He has no pain and has entirely given up the use of morphia, which before the operation, had been constantly employed in large quantities.—*American Journal of Medical Sciences*, Jan., 1883.

*Total Excision of the Sternum.*—At the recent Congress of German Naturalists, at Eisenach, Prof. Kœnig reported a case in which a woman had been treated by several physicians, for more than two years, for a sternal tumour which, without being excessively painful, gave great uneasiness from its steady increase in size. The tumour was as large as a child's fist, was moderately hard and clearly arose from the sternum, and passed laterally into the ribs. It was sarcomatous in nature. It was decided to remove the sternum after experimenting on rabbits The operation consisted first in the division of each rib near the sternum. A slight opening was made in the right pleura, and on further dissecting it was found that the pericardium was adherent to the tumour, and it was accidentally torn, as was also the left pleura. In spite of these openings the patient was only dyspnœic for a few moments. The wound was then closed after the removal of the sternum and dressed with iodoform. The dressing was not disturbed for 12 days, when it was found that part of the skin had sloughed, and that the heart was bathed in pus. Improvement was steady, and the patient was shown to the Congress with the wound quite healed. (*All. Wiener Med. Zeit.*, Sept. 1882; quoted in *American Jour. Med. Sciences*, January 1883.) This is a remarkable operation, and the successful result makes it justifiable; but another European surgeon, who lately extirpated a portion of lung for phthisis and lost his patient, has been much criticised, and the operation is now being made the subject of a judicial investigation.

*Amputation at the Hip Joint.*—Notwithstanding the very great advances made of late years in operative surgery, this operation is still a very fatal one, and one which the surgeon

undertakes only after the most careful consideration. The control of hemorrhage is still the chief difficulty. Davy's lever, it was thought at one time, would make the operation an almost bloodless one, and therefore lessen the risk. But of late two fatal cases have been reported, death being due to peritonitis. On post-mortem examination it was found that the lever had torn through the rectum and perforated the periteneum. In the last fatal case Mr. Davy himself was the one who manipulated the lever. The right side artery was compressed. As the rectum lies to the left side of the pelvis, in passing the lever up the rectum to compress the right common iliac artery, the bowel would have to be put considerably on the stretch, and so the risk of rupture would be much greater than if the left artery had to be compressed. These cases have destroyed the confidence of the profession in the usefulness of the lever, at least for compressing the right iliac artery. It may still probably be used with safety to compress the left iliac artery.

Dr. MacLaren (*Brit. Med. Journal*, Jany. 27, 1883) reports a successful case of amputation of the hip for necrosis of the femur in a child six years and eight months old. Mr. Furneaux Jordan's method was employed; that is dissecting out the thigh bone by a vertical incision, and making the circular incision through the soft parts some distance down. Davy's lever was used to compress the right iliac artery, and answered admirably, hardly any blood being lost. This is Dr. MacLaren's fourth case, with one death.

Mr. Lewis Marshall (*Brit. Med. Jour.*, Oct. 1883) reports four cases of amputation at the hip by Mr. Furneaux Jordan's method. All were in children—two aged seven, one aged five, and one aged two years and five months. In all, the fingers were used to compress the femoral. No more than two vessels were ligatured in any instance. Two drachms would represent the maximum blood loss. Catgut ligatures were used, and the wounds dressed with carbolic oil and lint. One case died three months after the operation from visceral lesions. Mr. Marshall fully agrees with Mr. Jordan that in this method of operating there is less shock, less hemorrhage and less opportunity for septic in-

fection. The vessels cut are more easily dealt with. It should only be employed where the soft parts are intact. Mr. Jordan holds the danger is much less when the femur is enucleated and the soft parts cut across at some distance from the hip joint and where they are smaller. The stump, though at first flaccid and limp, soon retracts. Mr. Marshall says his chief object in bringing these cases forward is to call attention to the somewhat tardy manner this method has been adopted by the profession, while all the London surgeons are endeavouring to find means of arresting hemorrhage from the posterior flap, they never even give this method, in which wounding of the gluteal vessels is altogether avoided, a trial. [Mr. Jordan's method is fully described in his book on "Surgical Inquiries," and in the *Lancet* of March 23, 1879.]

Mr. Shuter, at a late meeting of the Clinical Society in London (*Brit. Med. Jour.*, Feb. 17, 1883), reports a case of subperiosteal amputation at the hip, performed after Jordan's method. The patient recovered, with new bone in the stump. When shown to the Society, he could walk easily by means of an artificial limb which was attached to the stump.

Dr. R. Varick (*Am. Jour. of Med. Sci.*, Oct. 1882) reports a case of amputation of the hip joint, with recovery, Trendelenburg's method of controlling hemorrhage being resorted to. The method is as follows: A steel rod is passed obliquely through the soft parts between the femur and the femoral artery, coming out at the fold of the scrotum. An elastic band or tube is now wound in figure of eight fashion round the ends of the rod passing in front of the thigh, the knife is then introduced and the anterior flap formed. Having ligated the vessels and removed the compressing band and rod, the femur is next disarticulated, and the posterior flap formed in like manner. Dr. Varick says this is the first operation performed in this way in America. It was done for a case of compound fracture of the right leg and thigh, with considerable laceration of the soft parts.

*Question as to Amputation.*—Mr. Wm. S. Savory, F.R.S., in a short paper (*Lancet*, Jan. 6, 1883) remarks that perhaps in no case is the judgment of the surgeon more severely taxed

than when he is called on to decide the question of amputation in an injury to a limb. Mr. Savory says, in endeavouring to form a judgment in such cases one has to consider, first of all, whether the injury is greater than the operation for its removal. If the injury be greater, then of course amputation should not be thought of. Secondly, if operation be decided on, is the chance of recovery from the operation so much greater as to cover the risk from the second shock which the operation would necessarily cause? It was formerly held that less risk to life is incurred by operating immediately after the injury than at a remote period; but Mr. Savory thinks that opinion on this question has gradually changed, owing to the different experience civil surgeons have had from military, who always advocated primary amputations. In attempting to save a limb, we should consider "whether it is worth while, for the prospect of such future use in the limb that might remain to him, for a man to run, in order to preserve it, any additional risk of his life, and if so, to what extent?" With regard to secondary amputations he says: "Secondary amputations are more favorable than primary ones when there is a choice of time—that is, when we can afford to wait till the temperature and other signs of general disturbance have subsided; but secondary amputations are less favorable than primary if the operation is forced upon us at a period in the case when a high degree of fever still prevails. Herein, too, lies the difference in the prospect between secondary amputation after injury and amputation in disease, for in the latter case there is almost always a choice of time."

In the *Lancet* of Feb. 3rd, 1883, Mr. Savory, when speaking of *Symes' Amputation*, says the tendency of surgeons of the present day is to make the incision in the sole of the foot obliquely backwards at the expense of the flap, and thus lose a considerable portion of the thick integument of this region, which makes such a capital pad. This change is due to the fact that the further back the surgeon goes in his incision, the less difficulty he will have in dissecting off the integument from the heel. But this difficulty may be overcome, after making the incisions, by opening the joint and working from above down. The dissection

is thus rendered comparatively easy, and there is no danger of scoring the flap. I have seen this method of dissecting off the heel-flap performed many times in Germany, and have taught it in my operative surgery class for the last six years. In addition to the method of dissecting the flap, the incision for the heel flap in Vienna is always commenced by making a transverse incision on the plantar surface of the heel, as far forwards as the line of the tip of the external malleolus, and then extending the incision to the required point on each side. In this way there is no temptation to sacrifice the heel flap. In the same article, Mr. Savory, in speaking on *Ligature of Arteries in their continuity*, condemns the present practice of, after making the preliminary incisions, laying aside the knife and then endeavoring to expose the artery by tearing through the intervening tissues with a director. He points out that it is almost impossible to avoid bruising the artery or vein, or to make a clean and satisfactory isolation of the artery by this plan, and prefers the old-fashioned method of using the knife to expose the artery. He has never seen the artery cut by the knife, even when it has been used freely in awkward hands, but has seen the artery injured on the living and dead by the abuse of the director. Mr. Savory also prefers carrying the needle round the artery without the ligature, and passing the thread through it afterwards.

*Treatment of Frost-bite.*—Dr. Lapatin of Tiflis makes known a remedy which, he says, never fails, if mortification has not set in (*Phila. Med. Rep*, Oct., 1882). This is Balsam of Copaiba. It should be spread thickly on a piece of muslin or linen, and the affected parts covered with it during the night, a stocking being put over the whole. In daytime some balsam is merely spread over the parts. After one or two applications, the redness and pain cease, and a few more not only remove every sequelæ, but seem to impart to the surface a remarkably increased resistance against frost-bite, if common precautions are used. I have employed this in one case, but as the patient never returned to hospital, I cannot give the result.

*Treatment of Soft Chancres and Buboes.*—Antier states that salicylic acid is highly efficacious as an application to soft

chancres and buboes. It is odorless, only slightly painful in its application, soluble in alcohol and glycerine, and leaves no stain upon linen. (*Practitioner*, Feb'y, 1883.) This application might be of use in those cases of chancres where iodoform appears to irritate, or where the odor is objected to.

*Surgical Treatment of Mammary Tumors.*—Surgeons are beginning to lose confidence in the method of removing cancerous mammary glands which has lately been in vogue. The dissecting out of the gland neatly, and sewing up the skin so that healing takes place by first intention, and the patient discharged cured in 10 to 15 days, is all very well for the time, but is it the safest method? and is the disease wholly extirpated? I think not, as a rule, judging from the time that elapses between the operation and the fatal issue. A surgeon, perhaps, reports 20 or 30 cases of excision of cancerous mammæ, and glories in the fact that in all, union was by first intention, and that the average time each patient was under treatment was only, say, two weeks; but he does not write a sequel, telling us of the condition of these same patients a year or two after. The tendency of surgeons of the present day is to report cases or series of cases too soon after operation, and the final result is rarely published. One can easily see what fallacies we may fall into by adopting such methods, and how little benefit these hastily prepared papers are to the community. Dr. Mitchell Banks (*Brit. Medical Jour.*, Dec. 9, '82), asserts that surgeons, as a rule, do not remove cancers of the breast; they persuade patients that they do, and almost persuade themselves. He says if we look at the surgical works of a hundred and fifty to two hundred years ago, the true method of removing a cancerous breast will be found. The breast was laid hold of with great cutting pincers, and having been cut clean off, the raw surface was rubbed over with a red-hot poker. Dr. Banks advises that if the cancerous lump be deep, then some of the skin at the margins of the breast may be kept; but, if any part of the skin be involved, then a circle should be drawn round the breast, and it should be cut clean off without the remotest regard to flaps or coverings of any kind. The breast wound being settled, the incision should be carried into the axilla

about an inch below the margin of the great pectoral muscle, and all the glands removed, whether enlarged or not. He has come to the conclusion that, *in every case where the breast is removed, the axilla should be cleaned out as a necessary accompaniment.* The one operation is useless without the other. As you cannot tell whether the glands are diseased or not, remove them and dissipate the doubt. Dr. Banks has records of 46 cases, with 6 deaths; he admits this is a serious mortality (13 per cent.), but adds that if the operation is to be of any service at all, it cannot be otherwise than a serious one. Five cases died of septicæmia and erysipelas, and one of bronchitis. All the fatal cases were from 44 to 67 years of age, and they died from three to six weeks after the operation. In 11 cases the patients died from recurrence of the disease in from 3 to 12 months. Three cases died from one year and two months to two years after the operation from other diseases. Ten cases are still alive without return, in whom the operation has been performed 2 to 10 years, and three are alive on whom the operation has been performed one to two years. Nine cases on whom the operation was performed within the year are not tabulated, and one case has been lost sight of. Dr. Banks thinks if going to reappear, it will generally do so under 18 months. Gross says if the patient lives three years, the probability is that it will not recur, and the author agrees with him, and adds that it is a perfect delusion that the operation prolongs life even if the disease reappears. Although Dr. Banks usually practises Listerism, he does not do so in these cases, because he says the spray seriously lowers the temperature and vitality of the patient on account of the exposed condition of the upper part of the body for the 30 or 40 minutes which this operation should take. He contents himself with simply washing the wound well with carbolic lotion.

Prof. M. Lane Tiffinay (*Maryland Med. Journal*, Jan., '83) reports 30 cases of mammary tumors operated on by him during the last eight and a-half years, only about half being malignant. Twenty-seven cases were in whites and only three in mulattoes. He remarks that mammary tumor in the full-blooded negro is extremely rare. In all the cases the tumor was excised, and all

recovered from the operation. Many have since been lost sight of, but of the cases of malignant tumors, one is alive four years after operation, without recurrence, and one case the disease returned four years and a half after operation. The growth was a second time removed, and patient continues well to the present time. Dr. Tiffinay is a strong advocate for removal of all the glands in the axilla in cases of carcinoma, even if they do not appear diseased to the naked eye. He also agrees with Gross in thinking that union by first intention after operation is not so much to be considered as the free removal of the disease.

Dr. Sprengel (*Archiv f. Klin. Chir.*, 1882) has carefully analyzed 131 cases of mammary cancer operated on in Volkmann's Klinik from 1874 to '78; 112 were married, 8 of whom had never borne children. Of 98 cases, 21 had mastitis once, four more than once, and in four both mammæ had been inflamed. Sprengel concludes that puerperal mastitis most often predisposes to mammary cancer. In 44 cases, traumatism was alleged as the cause, but Sprengel says this must be accepted with reserve. There was a clear history of heredity in 109 cases. The tumor affected the right breast 56 times, and the left 75. It is stated that the carcinomata developing in immediate connection with pregnancy and lactation ran a peculiarly malignant course. The skin was always involved earlier than the muscular tissue. The rule that the entire gland should be removed was only twice departed from. The results of 131 cases, with 200 operations (including secondary operations), were 10 deaths—one from shock, two from embolism of the lungs, one from hæmatemesis, one gangrene, one erysipelas, and four from septicæmia. Recurrence took place most often within six months of the operation; 15 cases are reported cured, 13 remain free three years after the operation, and of the other two, one died of cancer of the opposite breast and one of a tumor entirely distinct from the original disease three years after operation. In 29 cases where the axillary glands were not involved, six were cured; but of 102 cases where the glands were affected, only nine had a like favorable result.—*Centralblatt f. Chir.*, July, 1882.

These results are not very encouraging to the operating sur-

geon; still, if even 10 per cent. recover, the operation is quite justifiable, though no doubt, while some lives are saved by the operation, others are considerably shortened. Mr. Banks had 10 out of 46 cases operated on by the method of removal of the whole breast and axilla living from two to ten years after, which is a considerably better result. However, in Volkmann's cases, the ones living since being operated on in 1878 are not included in his list.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Antiseptic Surgery.*—Dr. Robt. F. Weir, in the *Medical News* (Philadelphia), May 5th 1883, has an interesting article on "*The weak points of Listerism and the advantages of corrosive sublimate as an antiseptic.*" He remarks that it must be admitted that the dressings of Lister applied with the strictest attention to details, not infrequently fail in controlling the progress of putrefaction. This is due sometimes no doubt to imperfect construction of the dressings or the carbolic acid solution. Delacroix says ten per cent. of carbolic acid is required to destroy bacteric life, and Koch records that anthrax spores were destroyed by a five per cent. of carbolic acid only after two days immersion. But spores are much more difficult to affect than the bacilli themselves and the anthrax spore is the most resistant to disinfectants of all such micro-organisms. Koch formulates the statement that carbolic acid in one to five per cent. watery solution is a good disinfectant for those organisms which have not passed into the condition of spore growth, and that one part in 400 of water must be *permanently* present to control life in bacteria found in wounds. Dr. Weir has found that the strength of carbolic acid dressings (gauze) varied much with its age. After three months (kept in rubber cloth in a tight box) 1.44 per cent. of carbolic acid was present, although at time of preparation it contained 2.61 per cent. The gauze sold in shops contains about one-half per cent. of carbolic acid. The gauze when used

therefore should be freshly prepared. Another source of failure is encountered in the cat-gut ligature. Kocher, of Berne, gives a case where septicæmia was apparently caused by cat-gut; and Volkmann reports two cases of malignant pustule from inoculation by anthracized cat-gut. Koch has found that solutions of carbolic acid in oil or alcohol are absolutely inert in respect to their action on bacteric life, either on the spores or bacilli. He however remarks that "when it (carbolic oil) comes in contact with substances containing water, as for instance the tissues of the body, wounds, etc., then it undoubtedly gives off part of the acid to these, and in this way an antiseptic effect may be obtained."

Dr. Weir first used *corrosive sublimate* as an antiseptic in 1882, after reading an excerpt from an article of Delacroix. He used it in the strength of 1 to 2,000 for three compound fractures of the thigh and six of the leg with very satisfactory results; but the solution used was found too weak and a stronger one was employed, as Kümmel and Schede of Hamburg showed that it was free from risk of toxic effects. In 212 extensive wounds in which it was used by Esmarch and Neuber, there was no poisoning and only 3 deaths. In this number were 30 major operations, 32 re-sections, 5 herniotomies, 14 nerve stretchings, and in only 11 cases was the dressing changed more than once. Dr. Weir has himself used this dressing in fourteen major operations, and three compound fractures with the best results. One case of extensive laceration of the thigh died in twelve days of septicæmia.

The following is the mode of employment of this dressing. [Neuber, Kümmel and Bergmann use carbolic acid for the spray and instruments, and sometimes for washing out the wound]. The sponges and compresses are wet with a solution of sublimate, 8 grs. to the Oj (Solution No. 1). Silk, if used for sutures, etc., is dipped for two hours in an 80 gr. to Oj solution, and then permanently kept in an 80 gr. solution. Cat-gut as used by Kümmel is made by immersing it in an 80 gr. to Oj solution for twelve hours, and then it is wound on bobbins and kept in an alcoholic solution of twenty grains to

the pint, with one and a half ounces of glycerine added. This cat-gut, Dr. Weir finds, dissolves too quickly in the wound, and instead of keeping it in an alcoholic solution, he dips the gut for two hours in a solution 1 to 1,000 of chromic acid, and then dries it and keeps it thus. The gauze is prepared by immersing it in a solution of 20 grs. to the pint of alcohol with ℥ss of glycerine added. Drainage is accomplished by rubber tubes or by spun glass twisted or plaited. As absorbents, sand, saw-dust or dried peat are used after rendering them antiseptic by adding to a pound ℥i of sublimate dissolved in ℥iss of sulphuric ether. According to Koch, corrosive sublimate is the most powerful antiseptic known, 1 part in 1,000 destroyed the most resistant mico-organism. According to Sternberg 1 part in 20,000 of mercuric chloride equals 1 part in 100 of carbolic acid.

Th. Kocher (*Sammelung Klinikische Vorträge*, No. 244, 1881) has lately been using *Bismuth* as a dressing. It is not poisonious or irritating, and is quite as antiseptic as iodoform or carbolic acid, besides by using bismuth it is unnecessary to drain, and the wound can be closed up immediately and unites by first intention. The method of procedure is as follows: The wound is, during and after the operation, washed with a mixture of bismuth and water, 1 part in 100, well shaken. The bleeding having been completely arrested, the wound is stuffed with a 10 per cent. bismuth gauze before the stitches close the wound. This gauze is removed after 12–36 hours, and the wound closed by stitches. No drainage is used. The wound is then dressed with a 10 per cent bismuth gauze and covered with gum paper and cotton wool, and this is kept in place by a gum bandage, and strips of strong plaster are used to ensure even pressure. The instruments, hands and sponges during the operation are disinfected with carbolic acid, or, in already suppurating wounds, chloride of zinc.—(*Fortschritte der Medicin*, Feb. 1883.) At the recent Congress of the German Surgical Society held in Berlin in April last, Dr. Riedel of Aix la Chapelle read a paper on the use of bismuth as an antiseptic. He advocated the use of primary sutures

instead of secondary ones as recommended by Kocher, and said also that bismuth was useful not only in fresh wounds but also in those that were suppurating. His conclusion from an extensive use of bismuth was that it was a good antiseptic, but that like all others was not an unfailing one. He had combined bismuth with corrosive sublimate with good results. In the discussion which followed Prof. Kocher remarked that his increased experience had increased his confidence in bismuth. Prof. von Langenbeck also spoke in high praise of bismuth as a remedy most useful in promoting the union of wounds by first intention. His method was to wash the wound with bismuth suspended in water, and after closing the wound carefully and inserting a drainage tube, to apply pads of bismuth, and then carefully to bandage. Dr. Israel related a case of excision of the breast treated with bismuth, in which a severe stomatitis resulted, but no other surgeon present had had a similar experience.

Dr. John Duncan (*Ed. Med. Jour.* March 1883) in an article on "*Germs and the Spray*," states that a few years ago he made an attempt to discover the percentage which remained aseptic of cases in which major operations had been performed when the skin was previously sound, and was astonished to find that in more than half the cases, most of which he had hitherto regarded as aseptic, organisms could at one time or other be discovered. He is confident this result was not due to any error of manipulation. He asks whence do these organisms come, from within or without. That organisms of various kinds easily find their way into the blood by other channels than by palpable wounds may be held as certain, and that when present in the blood they are liable to attack tissues devitalized by injury. Dr. Duncan has found that in most acute abcesses organisms exist, and he has found them in strumous and chronic abscesses. Dr. Ogston found also that in a long series of acute abscesses examined by him, chains or groups of micrococci were invariably present. The author then says that it is impossible to avoid the conclusion that if the abscess be the effect of the presence of organisms, their entrance into the blood is com-

paratively common, and that sometimes they present themselves by this means in surgical injuries, and that the severity of the resultant effects will be determined by the same causes as influence them under other circumstances. Moisture and warmth, says Dr. Duncan, favor the multiplication of these organisms, and dryness and drainage are inimical to them. Under antiseptic dressings they are less harmful than otherwise. Healthy structures may destroy a certain quantity of microbia. After relating some cases of excision which healed in three weeks, in which, though apparently aseptic, the discharge contained abundant rod-like bacteria, Dr. Duncan states that it must also be admitted that contamination comes from without, and inquires if we can by our present mode of antiseptic dressing insure exclusion of external septic influences. He goes on to relate a great number of experiments with fluids in flasks from which he draws the following conclusions: (1.) That ordinary carbolized gauze maintains a wound aseptic not because it contains an antiseptic, but because of the filtering material of which it is composed, and in which respect it is much excelled by dry cotton wool and other dressings. (2.) That so far as the destruction of floating germs in the air is concerned, the spray is perfectly ineffectual. It may be a convenient method of throwing a solution of carbolic acid on the wound, but it can be of little value in operations which deal with deep cavities. (He exposed thirty-eight flasks under the spray, and seven became putrescent; thirty-seven exposed without the spray, nine became putrescent. Again, seven flasks $2\frac{3}{4}$ inches in diameter were exposed for the same periods with and without the spray, on both sides two remained clear and five became cloudy.) Dr. Duncan holds that the risk of contamination from the air has been greatly exaggerated. His conclusion is "that in the matter of wounds our prime object ought to be the attainment of the most absolute purity in all substances brought into actual contact with them, while rare contamination which may come through the air is guarded against by washing with antiseptic solutions, or by giving the germicide powers of living textures a fair opportunity of coming into play." Dr. Duncan's experi-

ments are most valuable in assisting to clear away the clouds of uncertainty which still envelop the spray. Lawson Tait and Keith have been most successful without it in abdominal operations, and if in these why not in others.

*Preliminary Tracheotomy.*—In a paper on the above subject read before the New York Surgical Society (*Annals of Anatomy and Surgery*, April 1883) Dr. Chas. McBurney says the objects are several. Firstly, to prevent the passage of blood down the trachea. Secondly, to facilitate the continuous and safe administration of the anæsthetic. Thirdly, to avoid the possibility of being called upon in the course of the operation to open the wind-pipe under forced adverse circumstances. Fourthly, to permit of a continuous, rapid and complete operative procedure, and thus avoid much unnecessary loss of blood. Fifthly, to secure to the patient after the operation an abundant supply of air, which is not contaminated by the discharge from the seat of operation. It does not appear from the article that Dr. McBurney had ever himself performed a preliminary tracheotomy; he evidently comes to the above conclusions on theoretical grounds and from the experience of others. In the discussion which followed most of the speakers were opposed to the operation as being unnecessary and often dangerous, though some advocated it not very strongly. Dr. Wm. T. Bull had performed preliminary tracheotomy four times with the ordinary tracheotomy tube, Tredenlenburg's tube he saw no advantage in.

*Pharyngeal Tubes.*—Dr. L. A. Stimson, at the meeting of the New York Surgical Society, held Jan. 23rd 1883, (*New York Med. Jour.*, April 7th, 1883) said that since the last meeting of the Society at which Dr. McBurney read a paper on tracheotomy as a preliminary operation, he had had a patient under his care with a tumour of the superior maxilla, and it had occurred to him that possibly a substitute could be devised for the tracheotomy tube, consisting of a tube to be introduced through the mouth into the pharnyx, the space around it to be blocked with sponges in a manner that would prevent the passage of blood into the pharynx, air passages, or

œsophagus. He, with Dr. Burney's assistance, had constructed an apparatus which consisted of a tube six or seven inches in length, and of the diameter of a No. 38 urethral sound. About an inch and a half of its extremity curved to almost a quarter of a circle, and provided with a flange one-eighth of an inch in breadth, perforated with small openings through which threads could be passed. About that curved portion be tied a sponge, stitching it fast to the flange and placing behind it a piece of impervious tissue, in order to favor the retention of such blood as might soak through the sponge. After complete anæsthesia had been produced in the usual way, the tube was passed into the mouth and carried well behind the root of the tongue; but it caused so much gagging that it was necessary to withdraw it until it reached only a little behind the uvula. Anæsthesia was maintained without difficulty through the tube. Sponges were packed around it, and as soon as they were filled with blood they were changed. The suggestion he thought so simple that he was sure it must have been acted on by others. The instrument was shown to the Society in the hopes that further trials might be made with it which would increase its efficiency.

*Removal of the To[illegible] by Scissors.*—In the *Lancet* of April 21st 1883, Mr. W. H. N. Jacobson discusses the various methods of removal of the tongue, and comes to the conclusion that any surgeon who having made use of other methods of removing the tongue, shall be led to try Mr. Whitehead's operation (described in the *Retrospect* of Sept. 1882) will give it a decided preference; as being equally safe, while it is far simpler and more speedy than any other. Mr. Fred. Treves in the same number of the *Lancet* reports four cases of excision of the entire tongue by scissors, by what is known as Billroth's operation, the lingual arteries having been previously ligatured in the neck, and comes to these conclusions: (1.) That it is comparatively simple and requires no elaborate apparatus. (2.) By its means more of the tongue can probably be excised than can be removed by the ecraseur. (3.) It is a practically bloodless operation. (4.) The wound that is left is an extremely simple one, and is actually a clear incised wound. (5.) The

intra-oral part of the operation requires but a short time, the actual excision occupying only about two minutes. (6.) Through the incision made in the neck for tying the lingual arteries, the surgeon is enabled to remove enlarged glands, and to detect such bodies when not able to be felt through the skin. Each lingual is reached by a curved incision that commences behind at a point some little way below the jaw opposite the anterior edge of the masseter, and that is continued down to the level of the hyoid bone, and finally carried up to the point behind and below the symphysis menti. Care should be taken not to disturb the sub-maxillary gland more than possible.

*Local Origin of Malignant Growths.*—In a most able address on the above subject delivered before the last meeting of the British Medical Association, and published in the *British Medical Journal* of March 24th 1883, Mr. Jonathan Hutchinson again strongly urged that cancer, in the main, is a disease local in its beginning, and insisted on the paramount importance of this doctrine as the only basis for surgical treatment. He also stated his belief that cancer by no means occupies a position of such absolute isolation as has been supposed, and that, when not the result of inheritance, it is not only sometimes, but almost invariably preceded by conditions of cell change, which are identical with those of chronic inflammation, and that inflammatory processes may pass by almost insensible gradations into those of malignancy. For this he proposes the name *Precancerous Stage.* He further suggested that there are cases in which the changes never advance beyond this introductory condition, and the malady remains ill characterized to the last. It is his conviction which grows with each year's experience, that in the rules of practice which would spring out of the full and hearty adoption of the doctrine of the local origin of cancer, rests our only hope of being able to save those who consult us from the horrors of this dreadful malady. He is sure that he has repeatedly seen syphilitic ulceration with inflammatory hypertrophy glide into cancer so imperceptibly and gradually, that he could not tell where one ended and the other began, and his impression is strong that parts formerly

affected by syphilitic inflammation posess a special degree of proneness to take on malignancy. He remarked that the causes of cancer, as we meet with it in practice, may perhaps be usefully classed as three. (1.) Senility of tissue. (2.) Local irritation, and (3) Inheritance. Of these only the two first can rank as true causes; the latter although practically of great importance, is only a mode of perpetuation of that which the other two have originated. Senility gives proclivity, local irritation excites, and subsequenity hereditary transmission may perpetuate. He instanced chimney sweep's cancer as giving the best illustration of what he meant.

With regard to its connection with inflammation, Mr. Hutchinson remarked that the infection of glands, of the viscera, and of the organism generally, is a power which cancer shares with inflammatory processes. The more we investigate, the more we shall see that all inflammations are really infective. If we could find, he goes on to say, some remedy the internal administration of which should cause a malignant ulcer to heal, or a malignant growth to melt away, as we witness when mercury or iodide of potassium is given for syphilitic formations, we should cease to notice any clearly marked clinical distinction between cancer and inflammation. And further on he states that his wish has been that our minds should be brought to that point of view in which we may see that it is, after all, just possible that what we call cancer, is only a modification of the inflammatory process; or, at any rate, to put the proposition in a more restricted form, that it is almost always preceded and initiated by changes which are of that character. He looks upon certain rare and exceptional forms of chronic ulceration (as for example rodent ulcer) which histologists will not admit as cancer, but which run a chronically malignant course, as forms of morbid action, which stand half-way between common inflammation and true cancer. Mr. Hutchinson also remarks that an ingenious argument in support of the doctrine of the constitutional origin of cancer has been based upon the fact that it almost constantly recurs after removal. But before any weight can be allowed to this contention, we must enquire where it recurs. If the

recurrence be in the lymphatic glands, or in other parts in close proximity to the growth, it proves only that excision was delayed too long, and that infection has already been accomplished, and the speaker quaintly proceeds to say that a farmer who allowed a thistle to seed before it was cut down would have no right to infer from next year's crop that his field had a constitutional tendency to the production of thistles. Mr. Hutchinson concludes his admirable and practical address with the remark that "When the doctrine of the pre-cancerous stage shall be widely adopted, and when surgeons generally shall recognize the propriety—let me say the duty—of operation for purposes of prevention, then, and I believe not till then, shall we witness a considerable reduction in the mortality of cancer."

In the discussion which followed the reading of the address, Sir James Paget, while admitting the existence of a pre-cancerous stage, the importance of which Mr. Hutchinson had urged, said it was impossible to exclude the general or constitutional influence, without which local influence would not operate to promote the disease. Dr. Thin remarked on the absence of all positive knowledge regarding the changes by which a physiologically healthy epithetial cell acquired the properties of stimulating an abnormal increase in the number of cells present in a part. Cancer cells differed in their vital properties, and in their chemical constitution, from healthy epithelial cells. Their contact was not tolerated by the adjacent vascular tissues, on which they acted like an irritating foreign body, and the action of staining re-agents showed that they differed chemically from normal. He was unable to follow Mr. Hutchinson in regarding rodent ulcer as representing a transition between inflammatory conditions and cancerous changes, the specific cancerous changes were as highly developed in rodent ulcer as in any other form of cancer.

Mr. Butlin said we were now aware of preceding conditions to tumors of two different kinds, those which were merely interesting and those which were valuable. To the first belonged traumatism, deep seated inflammations and inheritance; to the second class belonged certain typical morbid conditions, some

of which were hypertrophic, as moles, warts, etc., some inflammatory as certain chronic inflammatory conditions of the tongue, and of the vessels and areola of the breast.

Dr. Coupland suggested that the fact of long delay in recurrence of cancer might be explained by assuming that the organ secondarily infected might be the seat of cancer in the latent state.

Mr. Hutchinson in reply agreed entirely with Sir James Paget in assigning great influence to inherited tendency, but as he had urged in his paper, such a tendency must have been acquired in the first instance. In reply to Dr. Thin, that cancer and rodent ulcer were identical in the late and well characterized stages, he admitted; but there was a period in which he believed it was quite impossible to recognize it as cancer, and this assertion was to be applied also to early stages of malignant disease of the lip, tongue, penis and other parts. In all of these it was, he feared, true that the microscope, for the most part, became of use just when to the experienced eye it became unnecessary.

*Treatment of Gunshot Wounds.*—Dr. Roswell Park, (*Annals of Anatomy and Surgery*, Feb. 1883) in an article on the above subject, gives a *resumé* of the most recent methods of treatment. Summing up a monograph of Reyher's, he says: That the sooner the wounds of entrance and exit are antiseptically occluded, the better the prospect for life and limb. For wounds resulting from small arms this can be done in either of two ways. The surgeon may occlude the opening with antiseptic materials, and then clean and disinfect the surrounding parts; or he may cleanse and disinfect the bullet tracks, and then resort to drainage. In the vast majority of cases no exploration of any kind should be made; but if the nature of the wound seems imperatively to demand it, the search and all other operative measures should be postponed until they can be done under thoroughly antiseptic precautions, and the wound will then require to be drained. Esmarch says: "The damage done by the bullet is caused by it in its course; the harm that is added comes mostly from the examiner's finger."

*Pulmonary Surgery.*—Koch remarks that nine years have passed since he brought forward a method of procedure by means of which certain portions of lung tissue, even whole lobes, could be converted into fibrous tissue. He used then a concentrated solution of potassium iodide, but observed that the same end was attainable by means of the galvano-cautery. He pointed out finally that since November, 1873, he had found a considerable number of cases in which the first or milder treatment had been put in actual operation. By means of parenchymatous injections, pure iodine tincture had been introduced into portions of lung where tubercular degeneration had been demonstrated either by physical diagnosis or aspiration. His second plan was to destroy with the galvano-cautery those truly circumscribed tuberculoses of the apex, and especially to treat by these means those processes in the lungs which develop independently of specific infection. After relating two cases in which he had used the galvano-cautery in Prof. Leyden's clinic, in Berlin, he gives the indications for, and the method of employing, the galvano-cautery in the destruction of portions of lung tissue. (1.) In acute gangrene developing from saccular bronchiectases. If a cavity is found during the operation it must be laid open by a more or less capacious passage through the lung tissue, drained and irrigated. When a number of small bronchiectases inter-communicate, they must be converted into one large cavity, and treated in the same manner. (2.) If acute pulmonary gangrene be present, with (as after bullet wounds of the lung) dead and putrid tissue, surrounded by œdematous, hepatized parenchyma, cauterization of the necrotic area, must be freely performed, whilst at the same time a fistula is set up. (3.) A funnel-shaped opening through lung tissue is indicated when a foreign body in a bronchus is not expelled by the natural means, and is giving rise to extensive secondary changes. Koch regards excision of portions of lung unfavorably. In pulmonary prolapse resection is an *operation de luxe*, for we know that such prolapses soon shrivel of themselves; whilst, on the other hand, it is our duty by immediate reposition of the prolapsed portion to prevent any curtailment of the

respiratory area. In cases of bullet wounds of the lung, Koch would resect the ribs and draw the root of the lung forward for inspection. Hæmorrhage being arrested, the lung is to be replaced and the pleural sac drained under antiseptic dressing. [Wm. Koch in the *Separat abdruck aus der Deutsch Med. Woch.*, No. 32, 1883. Quoted in *Edin. Med. Jour.*, April, 1883.]

*Treatment of Warts on the Genitals with Chromic Acid.*—Dr. Cadell (*Edin Med. Jour.*, April, 1883) advises this treatment instead of the usual one of glacial acetic acid, or nitric acid. It was recommended by Mr. John Marshall as long ago as 1857. One hundred grains of the acid to one ounce of water is a sufficiently strong solution for ordinary cases. The warts should be carefully dried before the acid is used, and afterwards dry cotton wool applied. Dr. Cadell says chromic acid efficiently takes the place of ablation by the knife or scissors, and has the advantage of being a bloodless method, and much less painful. He looks on warts of the genitals and other parts of the body as strictly local in their nature, and believes that the so-called syphilitic warts have no existence.

*Treatment of Chordee.*—Dr. Cambillard in his *Thèse de Paris*, for 1881, advocates the employment of a solution of potassic bromide to quiet chordee. Every one will admit, he truly says, that the painful erections called chordee are very difficult to relieve, and that the number of remedies proposed is only equalled by their inefficiency. He has obtained uniformly good results from urethral injections of the following: ℞ Aquæ, 3ii; glycerini, 3iij; potassii bromidi, 3iss; tinct. opii, 3i. M. Sig. Four injections of this quantity in twenty-four hours. To prevent the noctural attacks, he insists that the last injection be practiced just before retiring for the night, the injections cause almost no pain, and are very effective in relieving the distress. (*Dublin Jour. Med. Science*, April, 1883). Might not this injection be of service to prevent the erections which occur after the operation of circumcision in adults?

*On the Simple Treatment of Congenital Club Foot.*—Mr. Edmund Owen (*Lancet*, April 28, 1883) considers that in

most, if not all, the cases of congenital talipes equino-varus, the tendo Achillis is the head and front of the offending. That when this tendon is shortened to the utmost in the elevation of the os calcis, it can contract still further by effecting a rotation of the bone upon its antero-posterior axis, the astragalus also participating in the inversion. In the many cases of slight equino-varus, section of the tendo Achillis will remove the talipes varus, and a prolonged and intimate acquaintance with the employment of plaster-of-Paris has shown Mr. Owen that in many instances of the two-fold deformity of infants division of the tendo Achillis is the only cutting operation required. His method is as follows: About three or four days after section of the tendon, the foot is to be put in a thickish sock which fits evenly and smoothly. Then from about the line of the clefts of the toes to a few inches above the ankle, the foot is to be quickly and firmly encased in the wet plaster bandage, and immediately that the last turn is finished, the foot is to be forcibly manipulated, so that as the plaster is setting, it may be steadily held in position towards flexion and eversion. In three minutes or less when the plaster has hardened, the tip of the sock should be cut off in order that the toes may be exposed to view, to allow the surgeon to see that the bandage is not applied too tightly. The plaster should be left on for two or three weeks, and at the end of that time the bandage should be removed, and the foot rubbed with oil and again enclosed as before, only as the plaster is hardening the position of the foot should be absolutely rectified, and again left for two or three weeks and then re-applied. After this the child should wear a stiff leather boot.

This method of treatment is not altogether novel. Dr. T. G. Roddick read a paper in 1880 before the Medico-Chirurgical Society of Montreal, which was published in the *Can. Med. and Surg. Jour.*, 1880, on the treatment of club foot by plaster-of-Paris. His method differs from that of Mr. Owen's in that he applies the plaster-of-Paris directly to the skin, and after dividing the tendo Achillis he maintains the foot in position by strips of rubber adhesive plaster.

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*Suture of Nerves after Division.*—All surgeons are agreed as to the propriety of uniting by suture the ends of nerves seen divided in recent wounds, but the suture of divided nerves long after the original wound has healed has not yet been extensively practised. Many cases of successful suture of divided nerves have lately been reported in the various medical journals. Mr. T. Holmes (*Lancet*, June 16, 1883) reports a case of suture of the musculo-spiral nerve five months after its division. The scar of the wound which severed the nerve was on the outer side of the back of the right elbow. Sensation was completely lost in right hand and forearm for a week after the accident, but partly returned after this time. On admission to hospital, the patient could pronate and supinate his forearm, with the elbow flexed, but could not extend the fingers or wrist in the slightest degree, and supination was impossible in the extended position of the forearm. The limb was much wasted. No pain was suffered, but there was a tender spot at the extreme end of the scar, just external to the biceps tendon. Operation was determined upon, and on cutting down, the two ends of the nerve were found without much difficulty. The upper end of the nerve seemed to have retracted, and terminated in a bulb the size of a common pea; the other end was somewhat atrophied. The two ends were more than an inch apart; a little of the lower end of nerve was taken off to freshen it, and part of the bulb on the upper end removed. The ends were easily approximated and kept in position by catgut and fine silk sutures. The operation was performed antiseptically, and the wound united by first intention. The operation was performed on March 10th, 1881; by March 15th there was some slight power of extension returning, and a few days later sensation on the back of the hand

was more perfect. The patient then left the hospital, and was not heard of for two years, when he returned to show how completely he had recovered,—sensation was perfect, and there was no difference in the size of the two arms. The patient said that it was about a year before improvement was very obvious to him, then he began to mend rapidly. Mr. Holmes remarks that to Mr. Wheelhouse we are indebted for having brought this operation prominently before the profession; his great success in uniting a sciatic nerve nine months after its division encouraged surgeons to adopt the operation. The uniting of divided nerves in recent wounds has been largely practised, and with much success, but as in these cases the wound very frequently recovers its function without this procedure, it is impossible to say whether the same result would not have followed had no suture been used; but Mr. Holmes asks: "Is the case of old injury and persistent loss of function really different? Will the nerves in these cases recover their functions if left to themselves?" That they do in some cases Mr. Holmes thinks is certain, and gives cases to prove it, but, he remarks, such a favorable issue is highly dubious, especially, as in his own case, where the interval between the divided ends is large and the nervous filaments are included in a large bulb. In such a case, any restoration of its anatomical continuity appears hopeless. Statistics as to the results of secondary suture are not of much value, because many cases are reported too soon after the operation, many cases not being greatly benefited till some time has elapsed after the operation, as in Mr. Holmes' case. Tillmanns records 13 cases of secondary suture; of these, Mr. Holmes classes 8 as successful, 3 as dubious, and 2 as failures. Mr. Bowlby, in his Jacksonian prize essay on the *Injuries of Nerves*, records 20 cases, 6 only of which were perfectly successful. With regard to the time after the injury at which the operation should be undertaken, Mr. Holmes says we are not yet in a position to lay down certain rules. If the parts are quiet, and the wound completely healed, there can be no motive in deferring the operation. However, Mr. Jessop operated on the ulnar nerve with partial success nine years after its division. Mr.

Holmes lately united the median and ulnar nerves eight days after the accident, and thought it would have been better to have waited till all inflammation in the wound had passed over, or even till the wound had entirely united. Mr. Holmes thinks that in suturing the ends of the divided nerve it matters little whether the suture be passed through the thickness of nerve or not, as long as the sutures have a firm hold. He uses catgut ligatures, reinforced with one or two of fine silk or horse hair. No instance has yet been recorded of any harm from the operation—no tetanus or acute neuritis.

Mr. Herbert W. Page (*Brit. Med. Jour.*, June 23rd, 1883) records a case of secondary suture of the ulnar nerve six months after its division. The nerve was divided near the wrist; after the wound healed, the cicatrix was very painful, and the little and ring fingers became bent and useless, so that patient had to carry his hand in a sling. His general health became seriously affected by the constant pain in the wound and its neighborhood. Sensation was very defective, though not entirely absent. At the patient's request, operation was decided upon, and the separated ends of the nerves found with much difficulty. The upper end of the lower portion was imbedded in thick cicatricial tissue, but was not enlarged; the lower end of the upper portion was swollen to about three times its natural size, and ended in a firm bulbous nodule, which was bound in cicatricial tissue. It was necessary to dissect the upper part of the nerve free for about two inches before the two ends could be brought together. They were joined by three fine catgut sutures passed through both sheath and nerve. The wound healed by first intention, and when he left the hospital, some three weeks after the operation, sensation had decidedly improved, the cicatrix was free from pain, and he had some returning power of extension of the last phalanges of little and ring fingers. In a fortnight after patient had made little progress, so he was placed under the care of Mr. De Watteville for treatment by electricity. Electricity was continued for a year by Mr. De Watteville, and having regained fair use of his hand, he ceased to attend the hospital, but applied the faradic current himself for six months. When last seen he

had been at work for several months, and his hand was as useful as ever. Mr. Page attributes his patient's recovery to the steady and long-continued use of electricity to restore the nutrition of the wasted muscles; but might not the same result have been accomplished without it, as in Mr. Holmes' case.

In another similar case, however, of Mr. Page's, operated on at the same time, the result was not so fortunate, because the patient, being a nervous, hysterical woman, persisted in keeping her hand in a sling, and refused to have electricity applied.

*Treatment of Nævi.*—Mr. Martin Coates, at the recent meeting in Liverpool of the British Medical Association, read a paper on the *Treatment of Nævi* (*Brit. Med. Jour.*, Aug. 18th, 1883). He began by stating that for superficial venous nævi he adopted the late Dr. Marshall Hall's method with complete success. His object was to excite just so much increased action in the growth as to cause deposition of lymph and occlusion of its vessels. A cataract needle was introduced about a line from the circumference of the nævus, and passed from the point of its entrance to the opposite extreme edge of the growth, keeping it, in all its course, as near as possible to the surface. The needle was then withdrawn almost to its point of entrance, and pushed again through the nævus at about one-sixteenth of an inch from the line of the first puncture, and so on until the lines of the puncture took a fan shape. It is desirable to keep the needle as close as possible to the surface, though, should it penetrate the thin covering of the growth, a piece of adhesive plaster arrests the bleeding immediately. A small white spot soon makes its appearance in the centre of the growth; this gradually spreads and there is left in a few months a spot perfectly smooth, and whiter than the surrounding skin. One operation has invariably succeeded with Mr. Coates in superficial venous nævi.

The *bright scarlet or arterial nævus*, whether it appears as a small bright spot, or as a patch measuring two inches in diameter, or, again, as one or two minute arterial branches, requires, remarks Mr. Coates, a more pronounced treatment, based, however, on the same principle—stimulation, not destruction of tissue. In his first case, the author punctured the nævus with

a bleeding lancet, and into the puncture passed a small point of nitrate of silver, holding it there a few moments. The nævus was cured, and no scar was left. Since then he has used a large needle with a blunt flat end. This he introduces with the flat end at right angles to the skin, and tears through each vessel. Ecchymosis takes place, which is soon absorbed, and the nævus is cured.

When the nævus, venous or arterial, exceeds a thickness of one-sixteenth of an inch, the needle operation is not applicable. In these cases, Mr. Coates injects undiluted tincture of iodine. The operation is very simple. Wood's syringe, with a very small needle, is all that is required. Sufficient tincture of iodine to fill the nævus having been drawn into the syringe, the needle is introduced through the skin at about a line from the circumference of the nævus, and passed to its centre; the piston is propelled slowly home, so as to force the tincture into every part of the growth. This is facilitated by moving the point of the needle into every part of the nævus. The needle is then withdrawn, and pressure made on the puncture for a few seconds, and then the operation is complete. Mr. Coates has practised this treatment many times, with complete success, since 1861. One injection generally succeeds.

At the same meeting, Mr. Edmund Owen also read a paper *On the Treatment of Large Nævi*. The nævi referred to are not of that variety, says Mr. Owen, which may be readily or effectually obliterated by the use of ethylate of sodium or nitric acid; they are vascular tumors, varying in size from a dried raisin to a ripe fig, and which, situated in and beneath the skin or mucous membrane, are steadily growing. After alluding disparagingly to the treatment by ligatures and setons, Mr. Owen goes on to say that in his experience all the demands are supplied and the objections avoided by the treatment of large nævi by that useful instrument, the thermo-cautery of Paquelin. The larger the nævi, the larger the heated point needed. Having heated the point of the cautery to dull redness, the blade is thrust through the skin in as many places as may be considered necessary, and the point directed to all regions of the vascular

mass, central, deep and peripheral; each district must be searched out and invaded. The skin punctures should be made well within the limits of the tumor, as the effects of the cautery necessarily extend beyond the limits of the tissues actually traversed. By slow and cautious withdrawal of the blade, the small eschars are permitted to remain, sealing the wounded vessels and preventing the loss of any blood. A few black sinuses, surrounded by a ring of skin which has been reddened by the scorching, remain after the operation, and the tumor is found smaller and firm from coagulation having taken place throughout the entire mass. Oiled lint is used as a dressing. For the next few days the part looks angry and swollen, and is very painful; then a slight amount of sloughing takes place, and in a few days more some small, clean ulcers are seen. The ulcers heal, and cicatricial contraction taking place throughout the entire mass, determines the process of shrivelling. The integument only perishes where wounded. Mr. Owen has been most successful by this mode of treatment with those tumors occupying the entire substance of the lip.

In the discussion which followed the reading of these papers, Mr. Thomas Darby said he had seen "raspberry marks" successfully treated, without leaving a scar, by hypodermic injections of absolute alcohol.

Mr. Silcock often practised an old and now almost obsolete method of treatment in the case of capillary nævi, viz., painting them with collodion; a natural cure was thus often brought about. Mr. F. J. Bailey said that smaller nævi had been very successfully treated by vaccination. Since the introduction of ethylate of sodium, he had used it rather extensively in the smaller nævi with great success; in some of the larger nævi, he had seen good results follow the use of the perchloride of iron.

*Transplantation of Muscle in Man.*—Helferich (*Archiv f. Klin. Chirurgie*, B. XXVIII, p. 562) reports a case in which, as a result of the removal of a fibro-sarcoma from the arm of a woman aged 36, the whole upper half of the biceps, with the exception of a thin strand at its outer part, was extirpated. Into

the cavity which was left he promptly introduced a large fragment of the biceps from the leg of a dog. The cut surfaces were carefully brought together with sutures, as little injury as possible being done to the parts. The transplanted muscle was much more voluminous than the original portion, and was, long after the operation, distinctly perceptible to the touch. Electric experiments, instituted about three months after the operation, showed that the biceps reacted naturally to both kinds of current. The high point of stimulation, situated at the point of section of the musculo-cutaneous nerve, was, however, absent. The movements at the elbow-joint were almost normal. (*Lancet*, July 8, '83.)

*New Method of Reduction in Dislocation at the Elbow Joint.*—Mr. J. E. Kelly, whose new methods of reducing dislocation of the shoulder and hip, were described in the Quarterly Retrospect of December last, has, in the *Dublin Jour. of Med. Science* (July, '83), described a new method of reduction of dislocation at the elbow joint. It is as follows: The operator sits on the corner of a table, at the end of which the patient is placed upon a chair. The injured limb is drawn under the surgeon's proximal thigh, which rests close to the joint, on the anterior surface of the humerus, while the olecranom is accurately placed on the anterior surface of the lower third of the distal femur, and the proximal foot is "hitched" behind the other leg, which is flexed firmly against the frame of the table. In order to obtain the most favorable fulcrum, the surgeon fixes his proximal elbow against the antero-internal aspect of his corresponding thigh, and, grasping the wrist of the patient with both his hands, reduction is effected by the simultaneous and co-operative action of the muscles of the arms, back and thighs. Fixation and counter-extension are supplied by the powerful thighs of the operator, and coaptation is effected, with great nicety, by the backward pressure of the femur against the anterior surface of the humerus, while the distal femur forces the olecranon forwards. . . . Extension is supplied by the muscles of the other extremities acting round the fixed point provided by the elbow of the surgeon, and, when his body is thrown backwards,

additional force is derived from the muscles of the back, the glutæi, and the other extensors of the thighs. (The description is much more easily understood when reference is made to the excellent illustrations accompanying the article.)

*The Treatment of Hordeolum.*—Mr. Fitzpatrick gives his recent experiences in the treatment of hordeolum (*Lancet*, April, 1883), or the common stye, during the time he was in Egypt. The plan of treatment adopted is to dispense with hot fomentations, &c., and to apply locally tincture of iodine to the lids, care being taken to keep them apart till dry A few applications in the 24 hours is often sufficient to arrest the development of the stye. (*Practitioner*, Aug., 1883.) I have found that the application of spirits of wine to the lid, when a stye is commencing, often arrests its progress, probably by causing contraction of the blood-vessels, and so driving on the stagnated corpuscles. The alcohol should be applied with a camel's hair pencil every few minutes for an hour or so. The application is quite pleasant, and will not disfigure, as the iodine application is sure to do.

*Anæsthetics.*—Deaths occurring during and after the administration of anæsthetics are reported from time to time in medical journals. The exact conditions which lead to a fatal result are not well understood, perfectly healthy individuals often rapidly succumbing, whilst others, who are in a very bad general condition, escape. The dose of the anæsthetic seems to have little to do with the fatal result, as many deaths occur at the very commencement of the administration, before more than a few drops have been inhaled. We have yet much to learn about the administration of anæsthetics. So far, I think, without doubt, ether has proved to be the safest, yet chloroform still holds its place from the ease with which it is administered and the rapidity with which it produces anæsthesia. The mode of administration is yet disputed point. Some say to give ether rapidly and safely, keep out air, and, when giving chloroform allow patient to inhale plenty of air; others, again, say that safe administration lies in giving plenty of air with ether and none with chloroform. A valuable paper by Dr. R Marcus Gunn, in the *British Medical Journal* of July 21st, 1883, on

"Statistics of Anæsthetics in relation to After-sickness and the Death-rate," will assist us in arriving at more correct conclusions on these points. Dr. Gunn, whilst House Surgeon at the Royal Ophthalmic Hospital, Moorfields, administered anæsthetics altogether 4,158 times. In 45 per cent. (1,902) of the cases there was sickness, and from the tables he gives it seems that females had a much greater tendency to sickness than males. The liability to sickness is at its maximum about the commencement of puberty, and decreases gradually towards each end of life. Dr. Gunn considers age the most important factor in relation to after-sickness. Chloroform was used for children under 3 and for adults over 60; between these ages, ether, a mixture of ether and chloroform vapour, or a mixture of absolute alcohol, chloroform and ether (in proportions respectively of one, two and three) was used. The author's impression is that, ages being equal, the tendency to after-sickness is about the same with ether as chloroform. Ether-sickness seldoms lasts long after the stomach is emptied; chloroform-sickness often continues for several hours and leads to great exhaustion. With regard to the influence of food, Dr. Gunn comes to the following conclusions: 1. Too long a fast is a disadvantage, especially in the very young and aged. 2. Speaking generally, the last meal should be given about four hours before the operation.

The weather has an influence on after-sickness; on certain days nearly every case was sick, while on other days sickness was entirely absent. There was less sickness when the wind was easterly. The highest percentage occurred in January; the lowest in March. Only one death occurred, during the administration of a mixture of ether and chloroform. The patient was a stout woman, aged 46. At the necropsy, the heart was found to be fatty. The author thinks, in this case, death was due to shock, as the anæsthetic had only been administered for one minute when the pulse failed and the respirations became shallow. Another case died after removal home. Patient was a fair, delicate-looking girl, aged 8, who recovered from the anæsthetic in the usual way, and spoke to the nurse, but remained pale, and began to be sick an hour after the operation. She was taken

home by her friends, and never spoke after leaving hospital, but died that evening. I should certainly attribute the death to the anæsthetic, because, if it had not been administered, the girl no doubt would not have died; but the author is doubtful about the case, as no autopsy was held.

Ether was introduced into Moorfields about the beginning of 1874, and from that date up to the present time anæsthetics had been administered 13,000 times, with only one death (the case of the woman described above) that can be fairly attributed to the anæsthetics. Dr. Gunn says that, next to carelessness, nothing is more calculated to increase the death-rate than widespread dread of its dangers. Mr. Roger Williams gives the death-rate as 1 in 350 inhalations. This the author thinks very exceptional, and he does not believe the majority of fatal cases are hushed up. Alarming symptoms will, he says, unavoidably occur occasionally during anæsthesia; but the greater the proportion of such cases to the actual number of deaths, the smaller the *real* danger. The anæsthetic must not be blamed for all cases of death. Chloroform vapour, without the admixture of air, will paralyze a strong heart, not to mention a fatty one; the shock of a severe operation will kill without an anæsthetic. A moribund patient may die of mere shock of removal to the theatre and dread of the operation, nor is the risk removed till perfect anæsthesia is produced.

Dr. Gunn concludes by stating that he believes Mr. Roger Williams' statistics give a much too high death-rate, as many of his fatal cases were not directly due to the anæsthetic. He believes that a mortality of one (or at least two) in 13,000 cases, as at Moorfields, corresponds more nearly with general experience. He states that his paper has been principally written "to prevent an unwarranted popular dread of anæsthetics—a dread, I am convinced, in itself most dangerous."

*Treatment of Warts and Condylomata by Carbolic Acid.*—M. Jullien has described, in the *Annales de Dermatologie*, the treatment used by Tommaso de Amicis and himself in cases of warts and condylomata. It consists in repeated cauterizations by means of pure carbolic acid, and is best adapted to large

sessile growths or to fungating cauliflower-like vegetations. The method of application is very simple. Crystals of pure carbolic acid are kept in a small bottle; the warts having been washed, the bottle is warmed in a flame or in nearly boiling water, and the crystals touching the glass melt. The fluid is applied to the whole surface of the warts with a brush or cotton wool. The warts soon assume a shiny, white appearance. The white layer soon falls off, and next day the operation can be repeated. Pure carbolic acid causes much less pain than chromic or acetic acid. The last cauterizations are always more painful than the first. In a case of vegetations on the glans and prepuce, the cure was complete after two applications.—(*Brit. Med. Jour.*, Aug. '83.)

*Treatment of Erysipelas of the Face.*—Roth has revived Wilkinson's old method of treating erysipelas, and Unna (*Monatsch. f. Prak. Derm.*) reports a case so treated. It consists simply in giving every two hours a tablespoonful of a mixture of eight parts of carbonate of ammonia with 210 parts of any convenient menstruum. Unna's case was very severe, with high fever, sleeplessness, and delirium. In 24 hours the affection was under control and amendment had occurred, and in three days the patient was well. No external applications were employed.—(*Quoted in Jour. Cut. and Ven. Dis.*, Aug., '83.)

*Treatment of Floating Kidney by Fixation.*—Dr. David Newman of Glasgow performed the above operation for the first time in Great Britain. The method described (*Brit. Med. Journal*, April, 1883) is the usual one, viz., exposing the kidney by a vertical incision in the right loin, just external to outer edge of the quadratus lumborum, and extending from the lowest rib to the crest of the ilium, opening the capsule of the kidney and stitching it to the sides of the wound, and two catgut sutures in this case were passed through the cortex of the kidney. The external wound was closed by button sutures. The patient was entirely relieved, and soon recovered from the effects of the operation. Dr. Weir, of the New York Hospital, has lately (*New York Med. Journal*) reported a successful case.

*Ligature of the Innominate Artery for Subclavian Aneurism.*—The operation of ligature of the innominate, which was lately

performed by Mr. Wm. Thomson of Dublin, at the time excited great interest and a hope that the case would turn out favorably, but, unfortunately, hemorrhage occurred on the 30th and 39th days, and the patient died on the 42nd. The account of the case given by Mr. Thomson in his pamphlet is most interesting. The hemorrhage did not occur from the point of ligature, but from an ulceration in the artery a quarter of an inch away. The coats of the artery were not at all divided by the ligature, and though the ligature had entirely disappeared, the artery was quite occluded at the point of ligature.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Excision of Knee Joint.*—Mr. Richard Davy, F.R.C.S., of the Westminster Hospital, London, has lately advocated (*Brit. Med. Jour.*, October 20th, 1883,) a new method of resection of the knee joint, which he calls *Tibio-femoral Impaction*. The method consists in removing the end of the femur so as to leave it wedge shape, the wedge sloping from before, downwards and forward, a mortise is then cut in the head of the tibia and into this is pushed the tenon-shaped end of the femur. The leg is placed in a splint specially designed by Mr. Davy, and pressure is kept up on the foot until "impaction results in fixity of tenure." Mr. Davy claims that the advantages of his operation are, "that osseous ankylosis is established (so to speak) before the patient leaves the operating table and many surgical contentions are removed, such as the misplacement of bones by startings, jerks, or inefficient bandging." Mr. Davy admits that considerable shortening results from this procedure, but he does not think this an objection. Like many of Mr. Davy's operative novelties, we fear this new method of excision will not be enthusiastically adopted by the surgical world, the operation is certainly a new one and should be placed under the head of mechanical surgery. Mr. Davy has performed excision now

twenty-one times, in every case without special antiseptic precautions. He has never lost a case and has only been compelled to amputate once. Dr. Fenwick, Prof. of Surgery in McGill University, has lately published a work on excision of the knee joint, in which he reports twenty-eight cases of excision with one death (this occurred before the introduction of antiseptic surgery), and two where amputation had to be afterwards performed. Dr. Fenwick's method of operation, which is original with him, is to round off the end of the femur by removing a thin slice with a Butcher's saw, and then sawing out a concavity in the head of the tibia, fits the convexity of the femur into it. By this means osseous ankylosis is secured, and also early fixity of the parts, thus he accomplishes in a much more conservative way, and without the sacrifice of the epiphysal ends of the bones, all that Mr. Davy claims for his wedge and mortise operation. Dr. Fenwick performs all his excisions with the strictest Listerian precautions. His results have been good, as I can testify, many of the cases recovering with less than one inch of shortening, and the majority with less than two inches, besides the growth of the limbs is not interfered with, as Dr. Fenwick proves by reports of cases of excision performed on children whose limbs were measured several years after the operation. The splint used after the operation is that of Dr. P. Heron Watson, of Edinburgh.

'*White Swelling,' Treated by Scott's Dressing.*—Dr. Perrier (Thèse de Paris, 1882,) says that this method of treatment has fallen into unmerited oblivion. M. Suchard recalled attention to Scott's dressing in 1879 and trials were made at the Children's Hospital which gave important results. M. Suchard's method is to first cleanse the skin by rubbing it with a sponge or coarse cloth steeped in camphorated spirit; afterwards to cover the whole region with a piece of lint spread with a thick layer of the ointment, composed of equal parts of camphorated *unguentum Hydrargyri* and soap cerate. This is kept in position by straps of sticking plaster, and over these straps are placed valves of flexible leather spread with soap cerate, this extends above and below the other dressing; a linen bandage is placed

over all. The dressing is removed every two or three weeks. Dr. Cazin, chief physician of the Hospital at Berck-sur-Mer, has also modified the preceding apparatus. He replaces the mercurial ointment with vaseline and covers it with cotton wool, over this he applies the strapping of sticking plaster and then another layer of cotton wool is put on and this is covered with a silicated bandage, when this apparatus is applied the children are allowed to play about the hospital and beach. The dressing is renewed every fortnight. Sometimes the application causes intense erythema which is removed by washing and powdering the skin and wrapping it in a linen bandage for two or three days.—(*London Medical Record, Nov.* 15, 1883.)

*On the Immediate Treatment of Fractures by plaster-of-Paris.*—At the recent meeting of the British Medical Association held in Liverpool, Messrs. Christopher Heath and John Croft read papers on the above method of treating fractures. (*British Med. Jour.*, September 22nd, 1883.) Mr. Heath's paper pointed out that many other fractures besides those of the leg might be satisfactorily and easily treated by plaster-of-Paris bandages or splints, such for instance as fractured thighs in children, Pott's fracture, fractures of the humerus, clavicle, &c. Mr. Heath thinks that unless the fracture be near a joint, the joint should not be included in the plaster, and that to enclose joints unnecessarily with plaster-of-Paris, is to provide cases for the bone setter, so he never includes the knee or hip joints in any ordinary case of fractured shaft of the tibia or femur. Fractures of the forearm are the only ones which Mr. Heath thinks unsuited for this method of treatment for the obvious reason that there would be great danger of drawing the bones together. Fractures of the olecranon he treats by flexing the arm to a right angle and allowing the patient to wear it in a sling. Mr. John Croft reported that he had treated over nine hundred cases of fractures of various bones by the immediate application of the plaster-of-paris splints with the best results. Each splint is constructed of two layers of flannel, the outer layer carries the plaster and the inner layer protects the skin. The splints are kept in place by muslin bandages.

The flannel or old blanket for the splint should be cut to the shape of limb; for instance, in applying a leg splint measure circumference at knee, calf, above the ankle, from the front of the ankle just round the heel to the front again, and at the middle of the metatarsus. Then cut the flannel half an inch less in breadth than half the circumference at those points. The four pieces of flannel then make two splints; the outside pieces are soaked in plaster of the consistence of thin cream and then laid on their respective inside pieces, whilst traction is kept up and the ends of the broken bones are maintained in apposition the splints are to be applied and smoothed and then the muslin bandage put on. Traction is to be maintained during the hardening of the plaster; this takes place in about three minutes. The bandage should not be too tight and should be evenly applied. The splints should not meet by half an inch down the front or back, as the swelling subsides the splints should be tightened by means of the bandages, and at the end of ten days if the patient be convalescing the outside bandage may be gummed, and at the end of a fortnight or three weeks the patient may leave for his own home.

In the discussion which followed the reading of these papers Dr. Gay, of Boston, U.S., said that this method of treating fractures had been in use in the Boston City Hospital for some years with very satisfactory results. Gauze was used instead of flannel and the limb was first wrapped in cotton wadding. The gauze was dipped in the plaster and applied to the limb and secured with an ordinary bandage. The layer of gauze did not meet in front by about an inch and the case could be sprung open at any time, removed and re-applied.

Dr. McColl (Michigan) used the plaster bandages with excellent results. He applied the plaster as soon after the fracture as possible, and enveloped the limb first in cotton wadding or flannel, making extension for 10 to 15 minutes, whilst the plaster was hardening. He allowed his patient up on crutches as soon as possible and did not remove the bandage for three or four weeks.

The immediate application of the plaster splint has not been

the rule here in Montreal, but in the cases I have seen this method practised, the result has been good. I had one case this summer of a bar-tender who broke his leg and soon exhibited signs of delirium tremens. The leg could not be kept in splint, so plaster-of-Paris was applied. The delirium lasted for some time and the man was tossing about continually, and sometimes threw himself out of bed. At the end of a month the plaster was taken off and the result was perfect, no deformity or shortening.

*Diagnosis of Fracture of the Neck of the Femur.*—Prof. Bezzi, after showing in the *Spallanzoni* the difficulties and uncertainties which often attend the diagnosis of this accident, observes that at the Milan Hospital a traditional practice exists of exploring (whenever fracture of the neck of the femur is suspected), the short space between the trochanter and crest of the ilium. In place of considerable resistance which is then produced in the sound limb through the tension of the tensor fasciæ latæ, there is found, when injury has occurred, a deep depression, due evidently to the diminution of the tension of this muscle owing to the approximation of its points of attachment. (*Presse Med. Belge*, July, 1883, quoted in *London Practitioner*, Nov., 1883.)

*Treatment of Fracture of the Patella.*—The surgical world has lately been much interested in the discussion which has taken place at the London Medical and Clinical Societies consequent on the reading of an address by Prof. Lister before the Medical Society on the *Treatment of Fracture of the Patella by Incision and tying of the fragments together.* The proper mode of treatment of this troublesome fracture has always been a serious question with surgeons, and very various are the means recommended to obtain union of the separated fragments. Some think the quadriceps muscle is altogether to blame for the separation of the fragments, and so treat the fracture by methods calculated to pull down the upper fragment; others say that separation is due to effusion of blood and serum, and advocate the withdrawal of this by aspiration. Others, as Prof. Hamilton of New York, say that bony union is not to be desired, as it can rarely be com-

plete, and leaves a weak bone, so they endeavor to get as close a fibrous union as [illegible] the application of bandages and splints.

Prof. Lister (*Lancet*, Nov. 3, 1883), in his address, relates seven cases of recent and old fractures of the patella treated by incision, and wiring together of the fragments. In all the cases, good bony union and free movement of the joint was the result. He strongly advocates this method of treatment, as the one best calculated to give the patient a useful limb. Six of these cases were shown to the Society, and in all the patella was perfectly natural in appearance and moved freely. Prof. Lister, as early as 1873, treated successfully ununited fracture of the olecranon process of the ulna by wiring the fragments together, and in 1877 first treated fracture of the patella in the same way. He first exposes the separated fragments by a longitudinal incision two inches long, then with a common brad-awl perforates each fragment obliquely, so as to bring out the holes upon the broken surface a little distance from the cartilage. Stout silver wire is then passed through the holes, and the fragments are brought accurately into position. Before he brings them together, he provides for the drainage of the joint. A pair of dressing forceps, with the blades closed, are passed through the wound to the most dependent part of the joint at its outer aspect; the instrument is then forcibly thrust through the synovial membrane, the fibrous capsule, and the fascia, until the point of the forceps is felt under the skin; then an incision is next made through the skin, upon the end of the forceps, to allow it to protrude; the blades of the forceps are then opened, and a drainage-tube drawn into the joint. The ends of the wires he twists, and in his early operations, left protruding through the wound; but, latterly, he has found it much better to cut the ends short and hammer the twist down on the bone and completely close the wound, except at the lower end, where he places a small drainage-tube. The silver wire in these cases has given no trouble.

Prof. Lister said it was very desirable that the lower surface of the patella should be left quite smooth, and the drill-hole should not perforate the cartilage; if it does, then the hole

should be chipped up so that the wire would come out on the broken surface. Mr. Lister said also that he considered no man justified in performing this operation unless he could say with a clear conscience that he considered himself morally certain of avoiding the entrance of any septic mischief into the wound, and that if he could say so, he conceived that he was not only justified, but bound to give his patient the advantages derived from this method of treatment. In recent cases, Prof. Lister does not operate till the distinct inflammatory appearances that exist as the immediate result of the accident, pass off. In old cases, he always pares the fragments and removes any intervening fibrous tissue before wiring them together. The conclusion of the address is taken up with a few very timely and earnest remarks on antiseptic treatment of wounds: "As regards antiseptic treatment, I should like to make this remark, that now-a-days it is not a very complicated business, either in theory or practice. First as to theory: We do not require any scientific theory in order to believe in antiseptic treatment. You need not believe in the germ theory at all; if you are not convinced of the truth of the germ theory of putrefaction and of septic agencies generally, no matter whatsoever, with reference to antiseptic practice, all you have to believe is that there are such things as putrefaction and of septic agencies, that our wounds are liable to these, that they are very pernicious, that these things come from without, and that we have the means of preventing them by various chemical agencies. . . . .

And then as to practice. It is not a very difficult thing to wash your hands in a carbolic solution, and have your instruments in this carbolic solution for a quarter of an hour before you operate. It is not very difficult to wrap round the limb a suitable envelope of antiseptic material. What I believe to be one of the most important things of all, is strictly to maintain this rule inviolate, which I insist upon with my dressers, and which, I confess, I have insisted upon more of late years than I used, and that is, *always when we change a dressing invariably first to cover the wound with something pure*,—not to wash the surrounding parts with antiseptic solution, and then, after this has been

done, put a dressing on the wound, but dress the wound first and wash the surrounding parts afterwards. . . The edges of the wound are septic; the wound, if it is as it ought to be, is aseptic."

At the adjourned meeting of the Medical Society held Nov. 5th, Prof Lister's paper was discussed. The majority of the surgeons who took part in the discussion, including Bryant, Morris, S. Jones, Gant and M. Baker, held that with all caution ankylosis resulted sometimes from this mode of treatment, that if this occurred in the hands of the most careful and skilled surgeons, what would be the result if this operation were performed by men not trained in the many proceedings necessary to practice antiseptic surgery and without the necessary surgical experience. For the present, therefore, they argued that the simpler and less hazardous measures were the best in the majority of cases, and only when these measures failed were the new rigorous measures of Prof. Lister justifiable. Prof. Lister in his reply said it gave him great satisfaction to learn how universally the antiseptic principle had been recognized so long as the grand principle of antisepticism remained it mattered not what the antiseptic used was. After replying to the objections raised by the various surgeons, he concluded by saying that he had brought the cases of suture of the patella before the Society principally with the object of illustrating what could be done by antiseptic surgery, more than to advocate its employment under all circumstances.

At a meeting of the Clinical Society of London, held Nov. 9th, Mr. Turner read particulars of a case of *Ununited Fracture of the Patella* treated by suture of the fragments, with strict Listerian precautions. Mr. Turner's case recovered with an ankylosed joint after a long period of suppuration. Mr. Turner also gave a summary of fifty cases treated by various surgeons with a fatal result in two instances, whilst suppuration and ankylosis of the joint frequently supervened. Mr. Lister, who was at the meeting, said that no surgeon should perform so serious an operation unless either prepared himself to dress the patient's wound as required or convinced of the ability of

the assistant in charge to do so. He was convinced that, bye and bye, fracture of the patella would be generally treated on the plan he described, in order to secure a perfect joint, without risk, under antiseptic precautions.

Mr. Holmes insisted that the operation could only be justified in some old cases, and not in new ones.

Mr. Heath thought that Mr. Lister's paper before the Medical Society might cause the loss of many knees if not of many lives, because it would stimulate country surgeons to repeat his operation under circumstances which rendered antiseptic treatment impossible. In recent cases, Mr. Heath insisted that the operation was both unnecessary and unjustifiable. (Mr. Heath's new method of treating recent fractures of the patella by aspiration is noticed in the *Retrospect* of June, 1882.)

Mr. Bryant read notes of thirty-two cases of fracture of the patella treated in the ordinary manner and collected at random from the Guy's Hospital register by Mr. Poland. The table showed that injured limbs treated in this way after intervals of 15 or 20 years remained perfectly useful as a result of treatment. With such an experience, he thought the risk to life incurred by Mr. Lister's operation could not be justified.

The general opinion then among English surgeons seems to be that the operation is not suitable in recent fractures, and that though Mr. Lister may be very successful, it does not seem that his most ardent disciples are capable of the same success. The operation is only justifiable in cases of old ununited fracture causing a useless limb and then should only be performed with the strictest antiseptic precautions.

Mr. John Wood, of King's College, has lately (*Lancet*, Nov. 17th, 1883,) had a death from septicæmia following the operation for non-union of fractured patella by the Listerian method. Now, when such a careful and skilled surgeon and so able an anatomist as Mr. John Wood has a failure with Listerism, what will happen to surgeons of ordinary ability and much less experience. It seems to me that this case is sufficient to condemn the operation, in recent cases, at all events. Mr. Wood

found that he could not closely approximate the fragments, and if union had taken place it would have been fibrous. The wound was never at any time fœtid.

Dr. McEwan of Glasgow, in the same number of the *Lancet*, reports several successful cases of this method of treating fractured patella, he insists on operating early in every recent case. Fracture of the patella is much rarer here than in England. Why, I am unable to say. In the Montreal General Hospital only some two or three cases have been treated in the last 7 or 8 years.

Prof. Cooper of San Francisco, more than 20 years ago, successfully treated fracture of the patella by wiring the fragments together, and this was done before antisepticism was thought of. He always allowed the wound to heal by granulation.

*Lateral Closure of Wounds of Veins.*—Dr. Pilcher, in the Angust number of the *Annals of Anat. and Surgery*, has a very interesting paper on *Lateral Closure of Wounds of Veins.* He has made a number of experiments on the deligation of veins with aseptic catgut ligatures. When lateral ligature was performed, in only one case did a thrombus form. There is, as a rule, union by first intention, and this preserves intact the function of the vessel. Dr. Pilcher recommends this method of ligature for wounds of veins whenever the antiseptic ligature (catgut) can be used and the wound treated antiseptically ; otherwise he advises a double ligature of vein and division between.

I lately, in operating on the neck for a large tumor, wounded the internal jugular, and performed lateral ligature with complete success. There was no secondary hemorrhage, and the case progressed favorably to the end. Still, in wounds of veins of ordinary size—as, for instance, the external jugular—I should be inclined to trust more to complete ligature, with division between, as no one can positively say that the wound will ever, with the greatest care, remain thoroughly aseptic.

*Aphthous Vulvitis in Children.*—Aphthous vulvitis is a well-characterized disease. It is peculiar to little girls from 3 to 5 years of age ; it is rare in private practice, and is observed especially in hospitals. Measles is the principal cause of this

affection; it furnishes two-thirds of the cases. Prognosis is good since the introduction of iodoform. The parts should be sprinkled with iodoform powder, and kept apart with pledgets of lint. The internal administration of tonics is a useful adjuvant to the local treatment.—(Arséne Sazaim, *Th. de Paris*, July, 1883; quoted in October *Journal of Cutaneous & Venereal Diseases.*)

Dr. Eugene F. Cordell (*Maryland Med. Journal*, Sept. 1st, 1883) strong recommends the use of a solution of carbolic acid as a *local anæsthetic* in minor surgery. He recommends, before opening an abscess, whitlow, cutting a tendon, or performing other minor operations, that the part be bathed for a few minutes in a five per cent. solution of carbolic acid. This, in some cases, deprives the part entirely of feeling, so that the patient does not feel the knife, and in other other cases considerably lessens the pain.

*Alopecia prematura.*—O. Lassar has continued his observations on the nature of premature baldness, and has further convinced himself of the communicability of at least the form associated with dandruff. . . . . He considers the disease is spread by hair-dressers, who apply combs and brushes to their customers, one after another, without any regular cleansing of these articles after each time they are used. . . . . Females, he thinks, are less often affected with this form of baldness, because the hair-dresser more frequently attends to them at their own homes, and uses *their* combs and brushes. In order to prevent, as far as possible, the commencement of alopecia prematura, the hair should be cut and dressed at home with one's own implements, and these thoroughly clean. The following treatment of this form of baldness is recommended: The scalp is to be daily well soaked with tar or fluid glycerine potash soap, which is to be rubbed in firmly for 15 minutes. The head is to be drenched first with warm water, and then gradually colder water; a 2 per cent. corrosive sublimate lotion is afterwards freely applied. The head is then to be dried, and the roots of the hair are to have one-half per cent. of napthol in spirit rubbed into them. Finally, a pomade of 1½ to 2 per cent. of carbolic or salicylic oil is to be used on the head. This treatment

has now, in many cases, brought the disease not only to a stand, but the hair has been to a considerable extent restored. (*Berlin. Klin. Woch.*, No. 16, 1883, quoted in *Edinburgh Medical Journal*, Sept., 1883.)

In ordinary dandruff, I have found useful the washing of the head with common or soft soap every other day, and, after drying the head, applying an ointment of equal parts of oleate of mercury (Shoemaker's) and prepared lard.

*Carbolized Sawdust as a Dressing.*—Mr. H. P. Symonds (*Lancet*, September 22nd, 1883,) recommends the use of coarse sawdust soaked in (1 to 10) solution of absolute phenol and spirit of wine, then allowed to dry that the spirit may evaporate, leaving sawdust charged with carbolic acid. When used it is enclosed in a bag made of several layers of gauze, and applied outside the deep dressing, the usnal external dressing being placed over it. The sawdust takes the place of the usual padding of loose gauze which is generally used. Its absorbent powers are very great, and it has the additional advantages of keeping up an even pressure on the divided tissues. Mr. Symonds finds that 14 oz. of sawdust will readily absorb about a pint of fluid. Wood shavings have been used extensively in Germany in the same way with good results.

*Sugar as a Dressing for Wounds.*—It appears that now there are very few substances that are not used in dressing wounds. Every week something new is used and praised highly for its antiseptic qualities and its cheapness. Bismuth, glycerine, earth, wood shavings, and now we have sugar. Dr. F. Fischer, assistant to Prof. Lücke, in Strasburg Hospital, has used powdered cane sugar extensively as an antiseptic dressing to wounds. In cases of wounds united by sutures, the sugar mixed with iodoform and naphthalin, is put up in gauze and applied to the part. When the skin is lost it is put directly to the part. The sugar dressing may remain on from 8 to 14 days without the sugar dissolving.

Dr. Windelschmidt, of Cologne, says he has used sugar alone as a dressing with good results and considers it quite as good as iodoform for small wounds. He also says that powdered sugar

is a very old popular remedy for fungous granulations, ichorous eczema and erysipelas of the face. Dr. W. has of late discarded the use of sugar in healing wounds, partly because when the patients found out the nature of the powder they ceased to have faith in it, and partly because when they had they treated themselves and so passed from observation. Sugar is aseptic if not antiseptic, and is as good as glycerine when used as a perservative by injecting it into the arteries of the dead animal we wish to keep from decomposing, but it is generally when used for this purpose combined with arsenic and nitrate of potash.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Catheter Fever.*—At a meeting of the London Medical Society, held in December last, Sir Andrew Clarke read a paper on "Catheter Fever," which excited considerable discussion amongst the surgeons present. By *catheter fever*, Sir Andrew means a low form of fever (often fatal) which follows the habitual use of the catheter in men about middle life, who are perfectly healthy, and with no discoverable evidence of disease, except a low density of the urine and a local condition of the bladder, which has given rise to the necessity for catheterization. When these cases prove fatal, Sir Andrew asserts that ofttimes no sufficient structural change is found in the kidneys to account for death. Sir Andrew Clarke, however, was only able to give the results of one such necropsy observed by himself, but he quoted from Velpeau and Marx evidence in favor of his views. He held that the fact that this form of fever may arise in what seems to be good health is not well known among surgeons, and had no adequate place in English surgical literature or English surgical teaching of the present time.

"This fever," the reader of the paper says, "is neither distinctly uræmic nor distinctly pyæmic, and probably first begins in the nervous system; that the disturbance of the nervous system reacts, in the first place, upon the general metabolism of the body, and, in the second instance, upon the secretory organs, beginning with the kidney; that the effect upon the kidney may consist either in structural alterations in the kidney, invisible by

the aid of our finest instruments of research, or (as seems more probable to Sir Andrew) in alterations of the constitution of the blood, that dynamic condition of its constituents in the renal vessels essential to the elaborative action of the excretory cells thereof; and, lastly, that the concurrence of these conditions may be, and often is, enforced by septic reabsorption into the blood." This definition is certainly vague enough, and may mean anything or nothing.

The prevailing healthy condition which the subjects of this fever suffer from is only apparent, as Sir Andrew Clarke admits there is low density of the urine, which means deficient excretion of solids, and the need of the habitual use of the catheter (or as Sir Andrew puts it, the entrance upon "catheter life") indicates the presence of some chronic urinary trouble. To put the matter plainly, the apparently healthy patient has been for some time suffering from enlargement of the prostate, with, probably, atony of the bladder. Sir Andrew asserts that where narcotics or anæsthetics are used in these cases, no catheter fever follows, and advises their use in persons entering upon habitual catheterism. Quinine, he says, has signally failed in controlling this fever, and he asks: What are the things to be employed on such occasions? and what is the sort of hygienic management to be followed, especially in respect to food and alcohol, which are so variously used on such occasions?

Sir Henry Thompson, in an able speech, described several forms of urinary fever which follow the use of the catheter, and are familiar to all surgeons. First, four or five hours after catheterism, and after the first passage of urine, the patient experiences a rigor, followed by fever, pains in back, and then sweating; these symptoms pass away slowly, no recurrence takes place, and the patient, in two or three days, is as well as ever. This Sir Henry calls an "acute transient attack," occurring in persons who have the most healthy renal organs, and occurs occasionally from a simple absorption into the blood-vessels of some small portion of the urine. The phenomenon above described, he thinks, may also arise from purely nervous causes. Another form of urinary fever is the acute

recurring form. The patient has, as a rule, four or five attacks of fever, and always recovers with rest and care. There is also a third class of cases where death occurs from 24, 36, to 48 hours after the attack, evidently from shock of some kind. A shock, Sir Henry said, sometimes follows the simple passing of a bougie on a young man who has never before had an instrument passed, and we cannot but be struck with the close sympathy that is established between the urinary organs and the nervous system; and it is therefore not surprising that in a very few and exceptional cases, with no obvious disease existing in the organs, the passage of the catheter may sometimes bring about a fatal result in 24 hours, and no special lesions be found to account for it. These latter cases, Sir Henry says, have no right to be included under the name of catheter fever.

In cases of true catheter fever, when ending fatally two or three weeks after catheterizing has been commenced, Sir Henry Thompson has invariably found, at the autopsy, advanced disease of the kidneys and ureters. Sir Henry pertinently remarked that it is not the attack of any catheter fever, but the want of a catheter at an early stage, which has placed those individuals suffering from enlarged prostate, with retention, in their dangerous condition. Where the residual urine is considerable, catheterizing mostly involves serious consequences, and Sir Henry insists on the necessity, in these cases, on the commencement of catheterism, of keeping the patient in a warm room, without exercise, perfectly quiet, and on simple diet.

Quoting from the results of University College Hospital, Mr. Berkeley Hill said that out of thirteen necropsies made on men dying after the relief of retention due to enlarged prostate, in eleven there was interstitial nephritis, and in the other two the condition of the kidneys was not clearly stated.

Mr. Savory said the urinary organs were very delicate tests of reflex action, especially if any morbid condition were present. The passage of an instrument may be followed by a rigor, and this was of two kinds—physiological and pathological. The latter attended by rise of temperature; the former not. He said that the cases to which Sir Andrew Clarke particularly alluded

were cases in which constitutional disturbance or fever or pyrexia is produced by local irritation through the nervous system. He also dwelt strongly on the necessity, before operations, of examining the condition of the kidneys, especially as to the quantity of urea they are separating from the blood; and with regard to serious operations, he would rather have thoroughly sound kidneys on his side than even a sound heart or lungs. He also remarked that in some of these cases which were said to have no appearance of mischief after death, the kidneys have still been at fault. In another class of cases where the kidneys are perfectly sound, Mr. Savory thinks we undoubtedly get blood-poisoning and septic inoculation after the use of instruments.

Mr. Harrison (Liverpool), in withdrawing residual urine in cases of enlarged prostate, substitutes an antiseptic fluid for the urine withdrawn. He said that English surgery was not only cognizant of, but prepared to meet, such cases as those to which Sir Andrew Clarke referred.

Since the discussion, the various English journals have been full of the subject of catheter fever, and one good has been to direct surgeons more particularly to this form of urinary fever, and to more widely make known its proper treatment. The opinion of most surgeons is that Sir Andrew Clarke has not told them anything new, that the disease about which he raised such a discussion was one that every experienced surgeon was perfectly familiar with, and that his assumption of the *role* of surgical preceptor has been quite unnecessary.

Mr. Henry Morris (*Lancet*, Dec. 22nd, 1883), referring to the fever which follows catheterism in persons suffering from enlarged prostate, says it is to the state of the kidney prior to surgical treatment, and not to the state of the bladder after the commencement of catheterism, that we ought to look for an explanation. The granular kidney, or the kidney which has been changed by chronic insterstitial nephritis, becomes the seat of acute suppurative inflammation, perhaps throughout, but more likely in areas. Two conditions are requisite—(*a*) a pre-existing degeneration of the secreting structure; (*b*) an alteration from obstruction, in the intra-renal pressure, whereby the ureters,

pelvis and calyces of the kidney become dilated. When these two conditions exist, a state of active congestion of the kidney is brought about by the release of the distension by means of the catheter, the elasticity of the kidney having been destroyed by previous disease, this increased flow of blood cannot be controlled or checked, and acute pyelo-nephritis sets in upon the top of chronic interstitial fibrosis. Mr. Morris, in such cases, advocates the recumbent position for some days after the commencement of catheterism, as that posture may favor the gradual change in the renal pressure. The diet should also be restricted, and ergot of rye given in moderately large doses.

*Treatment of large Bronchoceles.*—The removal of large bronchocele by the knife has, since the introduction of antiseptic surgery, become much more common. Billroth holds that simple primary thyroid cysts may be radically cured by puncture and injection of iodine. Larger bronchoceles, which cause dyspnœa, had better be removed by the knife. These, when even very large, if situated in the middle line of the neck, can usually be easily and successfully removed; but deep-seated substernal or unilateral bronchoceles are much less favorable cases for operation. Every bronchocele is encapsuled, and if care be taken, and the large vessels entering the tumor tied before division, removal can be complete. Mr Thornley Stoker has lately reported a case of removal of an enormous bronchocele to the Irish Academy of Medicine (*Dublin Med. Journal*, Sept., '83). The tumor occurred in a boy, and extended from ear to ear, and hung down as low as the navel. Two-thirds of the mass comprising the right lobe and isthmus was removed in March, 1882, and the remainder on the left side a year later. Complete recovery followed the first operation, but the patient died five days subsequent to the second from pulmonary thrombosis.

Mr. Henry Smith (*Lancet*, Jan. 5, 1884) reports two cases of bronchocele successfully treated by the seton. The first case was that of a man who had a great enlargement of the right lobe of the thyroid, which caused cough, dyspnœa, and general weakness, so that he could not attend to his duties. He was advised to have the tumor removed, but refused, so Mr. Smith,

after puncturing the tumor with a small trocar, passed a needle around by a double hempen thread through the opening, carried it deeply into the substance of the swelling, and brought it out on the other side. The threads were tied together and left to act as a seton. Great local irritation was produced, accompanied with a free purulent discharge. As there was considerable fever, the seton was withdrawn and a drainage-tube introduced. The tumor gradually decreased, and the man left hospital still wearing the tube. After a time it was taken out, and when the man was exhibited to the students, there was no appearance of the tumor, beyond a very slight thickening, and the man was in perfect health. The second case was that of a woman, aged 68, who had suffered from bronchocele for 16 years. The tumor involved the whole gland, and produced much distress, with dyspnœa. A seton was introduced and left in for 16 weeks; free discharge ensued, and the tumor rapidly decreased in size. The difficulty of breathing disappeared, and when shown to the students, there was hardly any trace of the tumor.

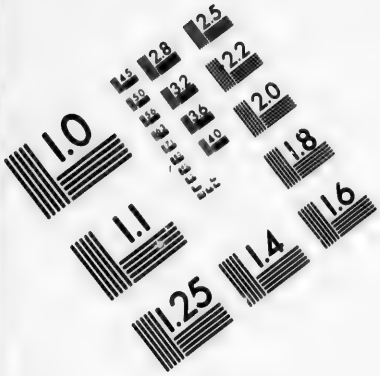
Although bronchoceles have been frequently removed, still, notwithstanding the greatest precautions, the operation is always a formidable and frequently a fatal one, so that the method advocated by Mr. Smith deserves trial.

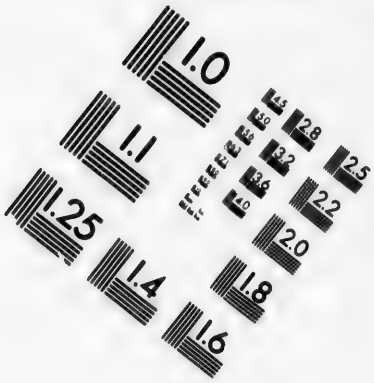
There is still another method, which has only lately been introduced, for the removal of the grave dyspnœic symptoms often produced by these large tumors, and it has lately been tried with success by Mr. Sidney Jones, of St. Thomas' Hospital, London. (*Lancet*, Nov. 28, 1883.) This method also involves an operation, but one which is much less serious than that required for the removal of the entire gland. The method is one which has been practised on the Continent for some time, and is the removal of the isthmus of the gland only. In Mr. Jones' case there was severe dyspnœa, and the structures in front of the isthmus were carefully divided, the veins being tied before division, and the isthmus was detached by the finger and director from the front of the trachea. An aneurism needle, armed with a double ligature, was made to perforate the junction of the isthmus with each lateral lobe, and the double ligature on each side was

tied as with an ovarian pedicle. The isthmus was then cut away and the ligatures left hanging out of the wound for drainage; a drainage tube was also inserted, and the wound dressed antiseptically. A month after the operation, the thyroid was scarcely perceptible, and the difficulty of breathing had entirely disappeared. In other cases of removal of the isthmus, a similar atrophy of the lateral lobes has been noticed. The late Dr. G. D. Gibb many years ago advocated the [illegible]ion of the thyroid isthmus to relieve the severe dyspnœa [illegible]ch occurs in large bronchoceles.

Prof. J. L. and Dr. A. Reverdin (*Revue Med. de la Suisse Romande*, 1883) give an account of 22 extirpations of the thyroid gland performed by them on 21 patients, 12 of whom were women. The size of the tumors varied from a hen's egg to that of an adult's head. In 17 cases total extirpation was performed. Two cases died. The average time in hospital was sixteen days. The Messrs. Reverdin were able to examine their patients several years after the operation, and then discovered certain remarkable alterations of the general health that showed themselves several months after operation in five patients, three of whom were women. There was first weakness and coldness of the limbs, then loss of appetite, slowness of speech, diminution of memory, and progressive anæmia, accompanied, in two cases, by a peculiar œdema, most marked on the face, and very analagous to that which occurs in myxœdema. These symptoms partially disappeared after three years. Messrs. Reverdin say they appear after total extirpation, and are produced by a lesion of the vaso-motor nerves, and by a mucoid infiltration of certain tissues in consequence of the removal of the gland. The Messrs. Reverdin recommended extirpation of the thyroid when there are symptoms of imminent danger, such as attacks of suffocation, and also in cases of retro-sternal or rapidly-growing goitre, when ordinary treatment has proved useless.—(*Condensed from Brit. Med. Journal*, Sept. 29, 1883.)

*Amputation in Senile Gangrene.*—At a meeting of the Royal Medical and Chirurgical Society of London, held Dec. 11th, '83 (*Lancet*, Dec. 15th, 1883), Mr. Jonathan Hutchinson read a

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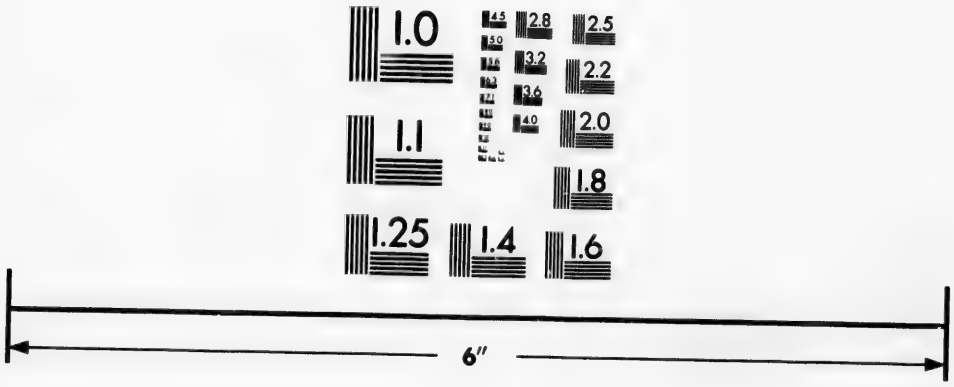


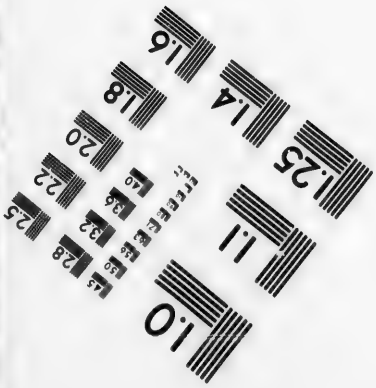


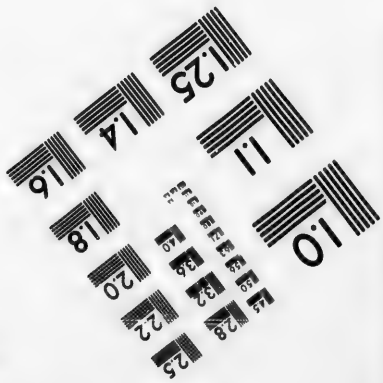


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paper advocating the treatment of cases of senile gangrene by high amputation. He urged the safety and expediency of amputating in senile gangrene if the operation were done at a good distance from the disease. In the common form of gangrene of the toes and foot, the lower third of the thigh was the part suggested as the proper level of the amputation, and in the rare cases, in which the hand was affected, the middle of the upper arm. The author stated that the reason amputation had fallen into disrepute was because the disease returned in the stump owing to the amputation having been performed too low down. The calcification of the arteries on which, in the main, the disease depended, was usually greatest near the periphery, and hence the difficulty as to supply of blood to the flaps. This source of danger is not met with if the operation be performed sufficiently high. In a series of cases in very old persons, the reader of the paper had only seen recurrence of the gangrene in one. In three the stump had healed well; in a fourth, in which the patient, although not old, was prematurely senile and the calcification of the arteries extreme, the recovery had also been excellent. One of the patients in whom the stump had healed without a drawback was 70 years old. As to the time to be selected, the author thought that as soon as the patient was so ill as to be confined to bed, and the disease well established, it was best to operate. Spontaneous cure was, he urged, very exceptional, and a great majority of such cases ended in death, with much suffering. The thinner the patient the less was the risk of the amputation. In a few cases where the thigh was exceptionally fat and the tissues flabby, it might be wise to hesitate as to recommending it. In all Mr. Hutchinson's cases Lister's precautions had been carefully used, and in two or three the patient had never experienced the slightest pain from the day of the operation.

In the discussion which followed the reading of the paper, Mr. Rivington supported the views of Mr. Hutchinson, and said he had amputated successfully in two or three cases. Mr. Hulke had seen cases of spontaneous recovery after senile gangrene of the foot and lower third of leg, and his experience was in favor

of conservative treatment. Mr. Cripps advocated amputation lower down than Mr. Hutchinson. Mr. Savory said the causes of senile gangrene were partly local and partly constitutional; when these reached a certain stage gangrene ensued, but in some the local causes were predominant, and in others the constitutional were most efficient, and as regarded treatment, the two classes could not stand in the same category. If the mischief depended chiefly upon the constitutional cause, amputation would not be successful; if upon local causes, it would. In typical senile gangrene, where the vessels are calcareous, a very trivial cause might start it; but in others, a considerable injury might originate it, and the same thing might occur in younger people, where the tissues were rotten. Where there had been a considerable amount of injury, he thought amputation would be useful; but in the typical form of senile gangrene, amputation, high or low, would be attended with disaster.

Mr. Hutchinson, in reply, said that he thought the abolition of shock by anæsthetics, the bloodless method of operating, and rapid primary healing of the amputation wounds, placed the question of such an operation in quite a different light from that in which it had previously been; however, if the spontaneous separation of the sphacelus were probable, and would leave a more useful limb than that made by a surgeon's amputation, he would, of course, prefer to leave the patient to the slower process of natural amputation.

Mr. James, of the Exeter Hospital, has reported a series of five successful cases of high amputation for senile gangrene in very old persons. I have at present under my care a case of senile gangrene of the moist type, where a line of demarkation formed about the middle of the right foot. The gangrenous part was separated at the tarso-metatarsal joint quite lately, and the case has progressed most favorably, a useful foot being left. At one time high amputation was thought of, but a line of demarkation forming, the idea of amputation was abandoned. The patient's arteries were very calcareous. Opium and stimulants was the principal treatment.

*Radical Cure of Exomphalos.*—Mr. Lawson Tait (*Brit. Med. Jour.*, Dec. 8, 1884) says that a hernial protrusion at or near

the umbilicus is an exceedingly troublesome condition in the adult. In children, in the majority of cases, it can be cured by the careful use of a well-fitting truss. It occurs chiefly in fat women, or in those whose abdominal walls have been greatly stretched by many labors or by large tumors. In cases occurring in adults, trusses are of little service, Mr. Tait says, so he advises operative interference. He has had eleven cases, all successful. He opens the sac, frees all adhesions, removes redundant and irreducible omentum, pares the edges of the ring and stitches them together with continuous silk thread, which he leaves permanently there. He has traced three of the patients thus operated on, and finds that the cure of the protrusion is permanent after eleven, eight and five years respectively. All the patients operated on have been very fat, and the last one was pregnant. Mr. Lawson Tait, in conclusion, remarks that if he is ever called upon to operate in a case of strangulated hernia, he will proceed by abdominal section, and complete the radical cure of the protrusion at the same time that he relieves the obstruction.

*New method of treating Psoas Abscess.*—Mr. Fred. Treves read a paper at the meeting of the Royal Medical and Chirurgical Society of London, held January 8th, 1884, on the *Direct Treatment of Spinal Caries by Operation.* He says (*Lancet*, Jan. 12, 1884) the gravity of spinal caries depends, not so much on any special pathological features in the process, as upon the depth at which this disease is situated and its inaccessibility to the usual operative procedures applied to caries elsewhere. Diseased bone cannot be removed from the vertebral bodies, and the morbid products having to travel a great distance in order to be evacuated, are apt to induce immense purulent collections. These collections are usually opened at a point remote from the original seat of the disease. In the operation proposed by Mr. Treves, the anterior surfaces of the bodies of all the lumbar vertebræ and the last dorsal vertebræ can be reached from the loin; a vertical incision is made near the outer edge of the erectors spinæ, the sheath of that muscle and the quadratus lumborum are cut through, the psoas muscle is incised, and the vertebræ reached by continuing the operation along the deep

aspect of that structure. By means of this operation the vertebræ can be readily examined, carious or necrosed bone can be removed, a ready and direct exit can be given to all morbid products, and an abscess situated in the psoas muscle or in the lumbar region can be evacuated while it is yet small, and before it has led to a large abscess cavity. If a large psoas or lumbar abscess exist, it can be evacuated at its point of origin, and at a spot that, in its recumbent posture, corresponds to its most dependent part. If Hueter's statement be true, that the two vertebræ most frequently attacked by caries are the last dorsal and first lumbar, the operation should be of frequent application. The author details three cases of this operation; all made a good recovery. In one of the instances, he evacuated at its point of origin a psoas abscess containing 40 ounces of pus, and removed from the body of the first lumbar vertebra a large sequestrum. The immediate improvement in this patient's condition was very marked. In another case, a psoas abscess had been opened in the thigh some months previously. By this operation, a counter opening was made at the point of origin of the abscess from the lumbar spine, and the entire abscess cavity was drained by a tube passing from the origin of the psoas muscle to its insertion. Mr. Treves added that, with regard to the last case in the paper, the patient did well, but the boy had chronic lung disease, the drainage-tube had to be removed, and he died with extensive cavities in the lungs and amyloid disease of the liver and kidneys.

In the discussion which followed, most of the speakers agreed as to the value of opening a psoas abscess at its point of origin and so securing free drainage, but condemned the cutting down on the diseased spine for the purpose of removing carious bone.

Mr. Furneaux Jordan has recommended a somewhat similar operation for the treatment of psoas abscess if the ordinary method is unsuccessful. Dr. McEwen of Glasgow treats psoas abscess by cutting down on the diseased spine.

Dr. Norman Chavasse of Birmingham published a lecture in the London *Lancet* for December 29th, 1883, in which he advocates opening psoas abscess by a posterior incision. His mode of procedure is as follows: An incision is made immediately

above the crest of the ilium, commencing at the edge of the erector spinæ muscle and carried three or four inches transversely outwards towards the anterior superior spine ; the various structures are divided, as in colotomy, till the quadratus lumborum muscle is reached. The forefinger should then be passed downwards and forwards on the iliacus muscle till the tense and distended psoas sheath is detected. A scalpel should then be introduced along the finger and the abscess incised, the opening being enlarged by dressing forceps. A drainage-tube should be introduced, and the wound treated antiseptically. Mr. Chavasse reports two successful cases treated on this plan. He says that to Prof. Chiene of Edinburgh is due this method of treating psoas abscesses.

*Treatment of Nævus.*—Mr. W. Beatty, in the *Brit. Med. Jour.*, Nov., 1883, notes that he has had great success in the treatment of nævi by the local application of arsenic. The preparation used is the ordinary Liquor Arsenicalis of the Pharmacopœia, with which the nævus is to be painted night and morning until ulceration takes place. The cure is effected in from three to five weeks.

*Treatment of Phagedænic Chancre.*—For ordinal cases, Vidal (*Bull. de Méd. Gén.*, Nov., 1883) uses an ointment composed of pyrogallic acid 40 grammes, vaseline 120 gr., starch 40 gr. When the ulcer has a very irregular surface and undermined edges, the best plan is to use a powder of pyrogallic acid 20 parts to starch 80 parts, which can be blown upon the part twice daily by means of a small pair of bellows.—(*London Medical Record*, Feb., 1884.)

*Prevention of Bedsores.*—Dr. H. Snow (*Brit. Med. Jour.*, Dec., 1883) recommends the use of the compound oil of hypericum in the treatment of bedsores. It induces healthy granulations, and does not produce any smarting. A bottle should be half filled with the flowers of St. John's wort, olive oil should then be added, and the bottle allowed to stand in the sunshine for some days till the oil becomes of a deep red color, then it is brushed over the sore two or three times daily.

*Treatment of Chronic Urethritis.*—Guyon says the internal treatment is very important, and differs (*Bull. de Méd. Gén.*, Nov., 1883) according to the constitution of the patient. Cod-liver oil, with creasote, arsenic, iodide of iron, sulphur, and the balsams are the best remedies. The local treatment consists in injections, instillations, cauterizations, or catheterism. Injections are too often valueless, as they do not always reach the bulbous part of the urethra. For instillation, Guyon uses a tube provided with a small syringe, and by which a solution (generally nitrate of silver, 1 in 20 or 1 in 50) can be brought in contact with the deep part of the urethra. Catheterism is only justified in very intractable cases, and a large metallic sound is the best; medicated bougies are valueless. In cases of gonorrhœal cystitis, Guyon advises the injection into the bladder of 10 to 15 drops of a 1 to 2 per cent. solution of nitrate of silver. The injection must be repeated every day, and may be used in recent as well as old cases.—(*London Med. Record*, Feb., 1884.)

*Conversion of Malignant Tumors into Innocent Growths.*—In a clinical lecture delivered in Munich (*Wien. Med. Zeit.*, June, 1883), Dr. Nussbaum expressed a belief that he had discovered a procedure for the postive cure of cancer, by restraining the proliferation of the tissue elements of the disease. It appears to him that a total interruption of all peripheral sources of nutrition is the means best adapted to secure the result. He accomplishes this object by the use of the thermo-cautery, with which instrument a deep channel is made quite around the malignant growth, thus cutting off entirely the supply of blood and other nutritive fluids from the surrounding tissues. The small vessels which ascend into the tumor from the parts beneath are sufficient to preserve its vitality, so that gangrene does not occur. He thinks the thermo-cautery far preferable to the ligature, and that it possesses many advantages over the knife. Prof. Nussbaum thinks that this method of circumscribing cancerous growths and cutting off every channel of peripheral nutrition has a brilliant future, especially in those desperate cases in which death is imminent from hemorrhage. In his hands this method has afforded satisfactory results.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Recent Operations on the Intestines.*—Operations on the intestines, formerly so rare, are now of common occurrence. They are called for in cases of strangulated hernia, producing a gangrenous condition of the bowel, in cases of artificial anus due to strangulated hernia, and in cases of intestinal obstruction due to various causes, as constricting bands, tumors, intussusception, &c. As long ago as 1727, Ramdohr successfully removed two feet of intestine found in an inguinal hernia, and up to 1846 only 11 cases of resection were on record, resulting in seven recoveries, one artificial anus, and three deaths. This operation was not performed again (*Medical News*, March 15, '84) until it was revived by Lücke in 1873, and during the last ten years it has been performed many times. The operation consists in relieving the constriction, and if the bowel be gangrenous, drawing it out of the opening, excising the damaged portion and the attached mesentery, and then sewing the cut ends of the gut together, thus re-establishing the continuity of the canal, and returning the parts to the abdominal cavity. Most of the fatal cases reported died of peritonitis. Out of 67 cases, 21 were complete cures, 2 recovered with artificial anus, and 44 (65–67

per cent.) died. According to the writer in the *Medical News* of the above date, the following points should command attention:

1st, To prevent effusion, the lumen of the gut must be temporarily occluded. This may be accomplished by a provisional catgut or silken ligature, but this method is open to the objection of throwing the intestines into folds, which interfere with the proper insertion of the sutures. The occlusion may be effected with a clamp or forceps, or, still better, with the fingers of the assistants.

2nd, If gangrenous, a triangular portion of the mesentery should be removed, and the edges united by suture after the vessels have been ligatured; if sound, it may be ligated in mass. In either case, the mesentery must not be separated from the bowel beyond the points of severance of the latter lest gangrene of the edges of the wound ensue. The gut should be divided at right angles to its axis, unless one end is smaller than the other, when the cut should be made at an acute angle.

3rd, The most important step of the operation is the insertion of the sutures, the material for which should be pure silk soaked in a solution of corrosive sublimate. The safest and most efficient mode of uniting the severed ends of the gut is what is known as the Czerny-Lembert suture. This consists of an inner row of stitches, which are inserted at the distance of one-eighth of an inch from one another, and which include all the coats of the bowel, and an outer row not so close together, each of which includes the serous covering only. If the mucous membrane protrudes too much, it should be cut off on a level with the muscular coat, but the inner stitches should not include it. The accurate approximation of the edges of the wound will be greatly facilitated if the first suture be inserted on the mesenteric side and the second at a point directly opposite. The intestines should be resected only through a sound and undistended portion beyond the seat of infarctions and effusions, as the chief cause of failure is the damaged condition of the gut in the immediate vicinity of the gangrenous portion.

Cases do as well after excision of eight or ten inches of intestine as after excision of two or three inches. Koeberlé

of Strasburg, on one occasion, removed six and a half feet successfully. The question arises, does the resection and suturing of the gut in gangrenous hernia present any advantages over attempting the formation of an artificial anus. Billroth, Dittel, Bergman and other German surgeons favor the latter course, but the writer in the *Medical News* thinks that those who resort to the operation of resection follow the proper course. If successful, the recovery is absolute; if it fails, and the patient survives with an artificial anus or fœcal fistula, his condition is not worse than if the operation had not been practised.

Dr. Porter reports a case (*Boston Med. & Surg. Journal*, May 15, 1884) where he excised a portion of intestine, including part of the ileo-cæcal valve, for the cure of a fœcal fistula. The patient had a right inguinal hernia at the age of eight years, and a similar condition at a later period developed on the left side. Three years previous to her admission to hospital, the hernia of the right side became strangulated, an operation was performed, a portion of intestine sloughed, and an artificial anus was formed in the right groin. Twelve days previous to entrance the hernia in left side became strangulated, and was relieved by operation. The resulting wound, which brought her to the hospital, was healed in two weeks, and then an operation for the closure of the fistula in right side was performed, which was unsuccessful. At the woman's earnest request, Dr. Porter operated for radical cure on Jan. 11, 1884. At that time the woman had two fæcal fistulæ, one above the other, in the right groin; these communicated. They were united by an incision which divided the lower margin of the abdominal ring and laid open the hernial sac; the incision was then prolonged, and exposed the whole sac, making a wound four inches long. The two fistulous openings in the intestine were an inch apart, and were connected by a cut made in a director. The opening in the bowel was then seen to be in the ileum and cæcum, just at their union. The finger could be easily passed into the large intestine, but not into the small, owing to cicatricial contraction, involving the ileo-cæcal valve, the opening being only the size of a lead pencil. A dilator was used to enlarge the opening,

and then, with the finger in the opening, the bowel was dissected from the surrounding cicatricial tissue ; this necessitated a section of the abdominal muscles from the external abdominal ring outwards for about four inches. The cicatricial margin of the opening was then trimmed off, and the opening was found to involve about four-fifths of the calibre of the bowel. The edges of this wound were then approximated, but as one side was the small, and the other the large intestine, the edges would not lie smoothly. To obviate this difficulty, a longitudinal cut was made in the small intestine, forming an oval-shaped wound, which could be approximated accurately to the cut edge of the large intestine. The wound was then sewn up with silk sutures as follows: "The needle was entered about half an inch from the wound, penetrating the peritoneal layer, then traversing the muscular layer of the gut, and emerging one-eighth of an inch from the margin of the wound, having left the mucous layer untouched. The needle was then entered at the opposite side of the wound in a corresponding manner, traversing the middle layer, and emerging about half an inch from the wound. Ten sutures were introduced in this way. When these were drawn tight, they rolled in the free margin of the wound, thus bringing two serous surfaces in contact, and turning the cut edge into the interior of the bowel." The intestine was then replaced in the abdominal cavity after additional silk sutures had been placed between the previous ones. The abdominal opening was now brought together with silver wire, the sutures passing through the peritoneum and fascia of the deeper muscles, but not the skin ; the skin was united separately by silk sutures, a large-sized drainage-tube having previously been inserted into the cavity of the abdomen. The wound was dressed after Lister's method, and the operation was performed under the spray. The patient did well, and, with the exception of some high temperatures a couple of weeks after the operation, due to a small collection of pus about the wound, was quite convalescent when the paper was read.

At a recent meeting of the London Clinical Society, held May 9th, Mr. Clutton related a case of *Intestinal Obstruction successfully treated by Operation.* (*Lancet*, May 17th, 1884.)

A boy aged 10, who several times before had attacks of obstruction of the bowels, which always terminated in copious evacuations after enemata, was, on the present occasion, taken suddenly with vomiting and great pain in the abdomen. Opium and enemata proving of no avail, Mr. Clutton decided to operate. He was transferred to St. Thomas' Hospital, and after the administration of an anæsthetic, the abdomen was opened. A collapsed portion of bowel was soon found, and, on bringing it to the surface, a tight, ring-like cord could be felt and seen to be the cause of the strangulation. The band was clamped by two pairs of forceps and divided; each end was ligatured by catgut. After division of the band, the bowel was set free from its strangulation. The band, on examination, was found to have reached from the extreme end of a diverticulum to the wall of the same loop of bowel at a distance of six inches. The abdomen was stitched up, and the boy recovered without any bad symptoms. In the discussion which followed the reading of the paper, Mr. Treves said that Peyrot had collected 29 cases of intestinal obstruction treated by operation, only four of which were strangulations by Meckel's diverticulum. He himself had collected 50 cases, and the mortality was about same, viz., eight, and thirty recovered. In cases of operation for strangulation due to diverticula, only about one in four recover. Mr. Treves also remarked that the pain of complete obstruction was continuous, as in only 5 out of 50 cases was it intermittent.

Dr. Angus McDonald (*Lancet*, Feb. 9th, 1884) reports a successful case of *Resection of several inches of the Small Intestine in the course of Abdominal Section for removal of an Extra-uterine Pregnancy*. On opening the abdomen, a loop of small intestine was found communicating with the fœtal sac, and, in fact, forming the roof of the sac. The intestine was in a very unhealthy and friable condition, and in endeavoring to empty the fœtal sac, Dr. McDonald injured the bowel. The piece of diseased and injured intestine, amounting in length to about six inches, was removed, and the cut edges of the two ends brought together with a continuous catgut suture, care being taken not to include any of the mucous membranes. The

stitches were put very close to one another. The gap made in the mesentery was also brought together by suture. A fæcal fistula, which communicated with the peritoneum, was closed by freshening its edges and bringing them together with catgut. There was a good deal of hemorrhage from the cut end of the intestine and mesentery, but the stitching completely arrested it. The abdomen and fœtal cavity were then sponged out, and a gutta-percha drainage-tube introduced into the wound, to the bottom of the fœtal sac, and retained by deep sutures. The abdominal wound was stitched in the usual way. For some days the patient was very ill, fæcal matter coming away by the side of the tube, but after a time improvement set in. The bowels from the first moved rather frequently. By the 30th day the drainage-tube was removed, and from that time everything went well. The patient made a perfect recovery.

Prof. S. D. Gross, in a paper read before the late meeting of the American Surgical Association (*Med. News*, May 3, 1884) on *Wounds of the Intestines*, remarked that the first foundation of a rational treatment of lesions of this kind was laid in this country in 1805 by Dr. Thos. Smith of St. Croix. His experiments, twelve in number, were performed on dogs. In 1812, Benj. Travers published a treatise entitled, *An Inquiry into the Process of Nature in Repairing Injuries of the Intestines.* His researches were more especially directed to the elucidation of penetrating wounds, and to the proper management of the bowel in strangulated hernia. Mr. Travers availed himself largely of experiments on dogs. After Mr. Travers, French surgeons gave much attention to this subject, and performed numerous experiments on the lower animals; among these surgeons were Amussat, Jobert, Lambert, Gély and Choisy. In 1843, Prof. Gross himself published an elaborate treatise on the subject, founding his conclusions on a series of seventy experiments performed on dogs. The author of the paper goes on to say that the diagnosis of wounds of the intestines is a matter of primary consideration. If the bowel has escaped through the wound, it will be easy to find the injured part by the egress of some of its contents, and so, also, when there is a

discharge of some of the fæces, &c., through the outer wound, although there be no protrusion of the intestine. But in cases of wounds by a narrow instrument, as a knife, dirk, or bullet, the bowel does not protrude, and the surgeon is uncertain whether it is wounded or not. The two principal signs which must guide us in these cases are tympanites and a discharge of blood by the anus. Tympanites is of great diagnostic value if it supervenes almost immediately after the wound has been received. It is always diffused, and never circumscribed. In connection with the probing of such wounds, Prof. Gross said "the universal sentiment of the profession is opposed to it, on the ground that, while it can do no good, it would often be productive of great harm by disturbing the relations of parts and thus endangering fæcal effusion. I do not think, however, that this rule should apply to the mural wound. Here a probe, properly used, might at least afford useful information in regard to the direction and extent of the external injury." He said two leading indications are to be kept in view in the treatment of wounds of the bowel—the prevention of fæcal effusion and the occurrence of peritonitis. To prevent these accidents, the wound in the bowel, be it ever so small, should be closed by sutures.

Prof. Gross advised the use of the interrupted suture in all wounds of the bowel, whatever their extent or direction. A long, slender sewing needle, armed with strong, well-waxed silk thread, is to be preferred; the sutures should be placed not more than a line and a half apart and one line from the edge of the wound. The needle should be passed deeply through the wall of the bowel, instead of embracing the entire thickness. Prof. Gross, in his paper, held that ordinary sewing silk, well waxed, is much preferable to carbolized catgut, as the latter is liable to give way prematurely. The continued suture had afforded good results in Dr. Gross's experiments in dogs, but the objection to it is that it leaves the edges of the wound in an uneven and puckered condition, which interferes with rapid union. The suturing of the wound having been completed, the parts should be cleansed with a syringe charged with warm water and returned. When the bowel is wounded, but not prolapsed, owing to the

smallness of the mural opening, the external wound should be dilated and the bowel hooked up and sutured, cleansed, and returned To prevent peritonitis, the abdominal muscles should be relaxed, the bowels locked up with opium, and nothing but a little pounded ice, or iced water, should be given for the first three or four days, and if much gastric distress, a little dry champagne. Oppression from gas must be relieved by injections of turpentine or assafœtida. If peritonitis ensues, it should be treated by leeches and full doses of opium. At the end of five or six days, a laxative of castor oil or sulphate of magnesia should be given.

Prof. Gross does not give any of his own cases, and it does not appear from his paper that he has had any experience in treating wounds of the intestine except in the lower animals.

Dr. Chas. T. Parkes, in his address on Surgery before the last meeting of the American Medical Association, treats of *Gunshot Injuries of the Intestines*. His conclusions, derived from a large number of experiments performed on dogs (*Medical News*, May 17, 1884), are as follows:—

1. Hemorrhage following shot wounds of the abdomen and the intestines is very often so severe that it cannot be safely controlled without abdominal section; it is *always* sufficient in amount to endanger life by secondary septic decomposition, which cannot be avoided in any other way than by the same treatment.

2. Extravasations of the contents of the bowel after shot injuries thereof are as certain as the existence of the wound.

3. No reliable inference as to the course of the bullet can be made from the position of the wounds of entrance and exit.

4. The wounds of entrance and exit of the bullet *should not be disturbed* in any manner except to control bleeding or remove foreign bodies.

5. Several perforations of the intestines close together require a single resection Wounds destroying the mesenteric surface of the bowel always require resection.

6. The best means of uniting wounded intestine after resection is by the use of fine silk thread, after Lembert's method.

It must include at least one-third of an inch of bowel tissue, passing through only the peritoneal and muscular coats, never including the mucous coat. The everted mucous membrane must be carefully inverted, and needs no other treatment.

7. Wounds of the stomach, small perforations, and abrasions of the intestines, can be safely trusted to the continued catgut suture.

8. Every bleeding point must be ligated, and the cavity of the abdomen must be perfectly cleansed.

9. The stumps of the divided mesentery should be secured to the intestine at the site of the resection.

10. Primary abdominal section in the middle line promises the most feasible opening through which the surgical treatment can be accomplished.

*Anæsthesia by the Administration of Ether by the Rectum.*—Dr. Mollière, in a note published in the *Lyon Médical*, April, 1884 (*London Med. Record*, May 15th, 1884), states that at the suggestion of Dr. Axel Yversen of Copenhagen he administered ether by the rectum to several patients. In the first case the ether was thrown into the rectum by means of a Richardson's syringe. In five others, an India-rubber tube the size of the finger was introduced into the rectum and put in communication with a bottle containing ether. The bottle was placed in warm water (50°C.), and the vapor of ether gradually passed into the rectum. Whenever tension of the vapor reached a certain point, part of it escaped through the anus. After five or ten minutes the patients complained of drowsiness and a taste of ether in the mouth. Complete anæsthesia could be produced in this way, but it was generally found advisable to let the patient inhale a few grammes of ether. The advantages claimed for this method are the very small amount of ether needed and the absence of a period of excitement. Its advantages are of course obvious in those cases requiring operative procedures about the throat and face.

In the *New York Med. Record* for 3rd May, 1884, there are several reports of a series of cases where the rectal method of etherization was tried. Dr. Wm. T. Bull reports seventeen

cases where ether was thus administered. He does not find that, as a rule, the period of excitement is suppressed, and a much longer period is needed to produce anæsthesia than by inhaling. In most of the cases reported, the anæsthesia had to be completed by administration in the usual way. The patient, in nearly all the cases, experienced considerable distension of the bowel, and at the end of three or four minutes the odor of ether was detected in the mouth. In seven out of the seventeen cases the etherization was followed by diarrhœa, and the stools in two instances contained blood. Dr. Bull comes to the conclusion that ether administered in this way may be very dangerous, as it acts as a severe irritant to the intestines, and that, in old people or the very young, might cause death by diarrhœa and collapse. Five cases are also reported where ether was given by the rectal method in the service of Dr. Shrady at the St. Francis and Presbyterian Hospitals, New York. In one case only was there diarrhœa, and in two of the cases there was a period of excitement. The ether in all cases was administered for short operations, and a prolonged use of the anæsthetic was not necessary. On the whole, in this series of cases, the verdict is most favorable.

In the same number of the *Record* is a letter from Dr. Jas. B. Hunter, who reports six cases of rectal etherization, and says, as the result of this experience, that this method of administering ether is a radical improvement on the old one. The very small quantity of ether used, the absence of strangulation, and struggling or unpleasant sensations, are matters of no small importance, and give the rectal method a decided value.

At the very end of the journal above-mentioned comes the skeleton of the feast. This is a note of warning from Dr. Robt. F. Weir, who reports a fatal case in a child eight months old, who was operated on for hare-lip. At the close of the operation, the little patient was somewhat depressed, but rallied under stimulants; during the night, however, it had several large and bloody stools, and died the following morning.

That this method, when the mode of administration is better understood, will prove a most useful one in short operations on

the face, cannot be denied. It will also be useful as a preliminary to the usual method in cases where ether causes unpleasant sensations, such as strangulation and excitement, when inhaled. But, as Dr. Bull says, in the old, feeble, and very young, it may prove very dangerous by its depressant action and the production of bloody diarrhœa, as in Dr. Weir's fatal case. The amount required to produce anæsthesia by this method seems small, but the quantity given cannot readily be estimated or regulated. It will not suit in prolonged operations, except as preliminary to the method by inhalation.

*Forcible Dilatation of the Cardiac Orifice of the Stomach for Stenosis.*—Prof. Loreta, on the 15th of March last, performed, for the ninth time, dilatation of the orifice of the stomach. The case was one of a young girl aged 20, who had had ulcer of the stomach, followed by constriction, which had steadily increased. At first, solids, then fluids, entered the stomach with difficulty, the body rapidly wasted, and life could only be maintained by nutritive enemata. Having diagnosed stenosis of the cardiac orifice, Professor Loreta opened the abdomen in the linea alba, and found the stomach thick, small, and contracted. He incised it freely, and passed an elastic bougie through the cardiac orifice to make way for his dilating instrument. This soon overcame the obstacle in spite of efforts to vomit. The œsophagus was found much dilated. The apertures in the stomach and abdominal wall were sutured separately. The operation was performed under chloroform in 30 minutes, and the patient, so soon as she had recovered from the narcosis, to the great surprise of the on-lookers, swallowed three spoonsful of water with perfect ease. The patient, when Prof. Loreta last wrote, had perfectly recovered.—(*Lancet*, April 26th, 1884.

In an address *On the use of Opium as an aid to Surgery* (*Brit. Med. Jour.*, April 26, 1884), Mr. Geo. Pollock says it is in the various conditions of gangrene that opium may be said to stand alone as useful and powerful for good, whether the gangrene be the result of injury in old age, or whether it be in an ulcer in advanced life, kept open by neglect and exposure. In cases of gangrenous ulcers, opium administered internally

arrests or modifies any tendency to ulceration and sloughing, soothes pain, and husbands the powers of the patient. In senile gangrene, Mr. Pollock knows nothing, as regards medical treatment, which can compare with the internal use of opium. It alone will mitigate the pain and render life tolerable till the line of demarcation appears. In such cases opium may be used freely. In traumatic spreading gangrene, opium is of no use ; neither is it of any service in gangrene attendant on diabetes, or due to embolism. In the various forms of phagedœna, Mr. Pollock has seen most satisfactory results follow the free use of opium. In such cases opium is not so generally appreciated as it deserves to be, more dependence being placed on local than general treatment. Mr. Pollock has never once in his large experience had recourse to nitric acid in cases of sloughing phagedæna and sloughing sores, nor has he ever found the use of opium to fail in such cases. In all cases of syphilitic phagedæna in private and hospital practice he has trusted alone to the internal use of opium, and has never been disappointed. In ulceration and sloughing of the mouth in young children, Mr. Pollock has found 3 minim doses of laudanum administered every four hours till drowsy, then omit whilst the drowsiness lasts, and continue after it ceases, of the greatest benefit ; these cases getting well without any other treatment.

Of the use of opium after hernia operations, and in cancer, little need be said in praise. In cancer, it not only gives relief to pain, but renders life tolerable. The tolerance of opium in many cases is remarkable, the quantity being only measured by its quieting effects. In administering opium, constipation is a thing to be guarded against. Sir Benj. Brodie used to prescribe calomel occasionally when the continued use of opium was requisite. It will be sometimes necessary to relieve the rectum by enemata, and even occasionally to break down hard accumulations of fæculent matter. Not unfrequently opium disagrees in certain individuals ; in one it may be the quantity, in the other the quality, of the ingredient. Some cannot take solid opium, whilst Battley's solution agrees well. In others Battley's fails, but codeia can be tolerated, especially as a sedative in bladder trouble complicated with enlarged prostate.

I have this winter had under my care a case of senile gangrene which fully confirms what Mr. Pollock says. First one foot became affected, and full doses of opium were given, the line of demarcation formed, and the gangrenous part removed; then the other foot became excessively painful, and soon after became gangrenous, and after some time a line of demarcation formed and this foot was removed. During all this time the patient was treated with full doses of solid opium to relieve pain, and 8 oz. of whiskey daily to sustain his strength. Without this treatment he would have succumbed to exhaustion; now he is in a fair way to recovery, having been supported by opium till the crisis had passed.

*Pressure in the Treatment of Suppurating Buboes.*—Prof. O. Petersen treats buboes, after fluctuation is clearly determined, as follows:—A large incision is made, and the cavity of the abscess is cleaned out with a sharp spoon. The bleeding is stopped, and iodoform powder is applied. Then comes the pressure bandage, which is the important factor of this treatment; its application is as follows: First a ball or wad of salicylic cotton, or other soft material made antiseptic by salicylic acid, is formed the size of the cavity and placed over it; upon this wad are placed several layers of the same material; then a second ball or wad, made of tow or oakum, and about four times as large as the first, is placed on this, over this oilskin or wax paper, and the whole firmly fixed with a gauze or elastic bandage. This bandage remains untouched for from seven to ten days. The average length of healing, in a trial of three years of this method, was twenty-three days; previously the average was seventy to ninety days. Twenty per cent. of the cases healed under one bandage, twenty-five under two, and twenty under three; more than seven bandages were in no case necessary. The average number of bandages was two.—(*Centralblatt f. Chirurgie*, Nov. 1883; quoted in *Practitioner*, April, 1884.)

I have used a somewhat similar treatment for the last two or three years, and have been well pleased with it. I have used borated cotton in place of salicylic. The pressure is the most important part of the treatment.

*Iodoform in Erysipelas.*—In an article in the *London Practitioner* for May, 1884, Mr. C. C. Burman states that in his experience the most successful external application for erysipelas is a solution of iodoform-collodion; it promptly relieves the burning pain and seems to arrest the progress of the disease, and in the cases where it was applied, there is a remarkable freedom from irritation during the period of desquamation. It is the experience of most surgeons that iodoform does not protect against erysipelas. I should imagine that in the cases referred to by Mr. Burman the good effect depended more on the collodion than the iodoform. However, it is a remedy worth trying. It probably acts in the same way as white lead painted on, viz., by protecting the inflamed surface from the air.

*Cholecystotomy.*—Mr. Lawson Tait (*Brit. Med. Jour.*, May 3rd, 1884), in a note on the above subject, states that the patient upon whom he first performed cholocystomy in 1879 is still living. He has performed the operation thirteen times, and all the patients have recovered. Mr. Tait does not approve of Sir Spencer Wells' suggestion that after opening the gall-bladder and removing the gall-stones the wound in the gall-bladder should be closed by a continuous suture without attaching it to the abdomen. It is, he says, a matter of extreme difficulty to be quite certain that all stones are removed from the duct, and if one remains, and the gall-bladder, which fills up with its own secretion even if no bile enter it, would, by its efforts to expel its contents, re-open the wound and cause extravasation into the peritoneum. The same reason exists for not putting into practice Langenbuch's proposal to remove the gall-bladder; if the gall-bladder were removed when a stone was lodged in the common duct, the bile must all flow into the peritoneum. In some of Mr. Tait's cases, biliary fistulæ have remained, some no larger than pin-holes. In one case, where a stone remains in the duct, every drop of bile comes through the fistula; he has several times tried to close the fistula, but without success, as the endeavor always brings on agonizing colic. In this case he proposes to open the abdomen again, about an inch to the inner

side of the gall-bladder, and to crush the obstructing stone *in situ* by means of a pair of padded forceps.

Whilst watching these interesting cases of biliary fistula, Mr. Tait has read much about the functions of the bile, and finds that all the experiments from animals have been futile in settling even the most elementary facts of the influence and uses of human bile. He has not seen the slightest evidence to prove that either quantity or quality of food, or any drugs that were used, as morphia, calomel, podophyllin and rhubarb, have the slightest effect on the quantity or character of the secretions. None of the patients have suffered even when all the bile came through the fistula—indeed, one patient gained in weight and greatly improved in health. The stools are almost milk-white, and there is not the slightest evidence of the flatulence and decomposition which is said in text-books to be the result of biliary fistula.

*Reduction of Incarcerated and Strangulated Herniæ by Faradisation.*—In *Vratch*, No. 23, 1883, Lev, Koltchevsky and Voloshkevitch report cases of strangulated and incarcerated herniæ reduced by faradisation, where taxis, warm baths, ether irrigations, &c., had failed. In some of the cases the reduction was accomplished in a few minutes; in others, in a quarter of an hour. One of the electrodes is placed alternately to the neck of the tumor and to the hypogastrium, and the other to the fundus of the hernia.—(*Lond. Med. Record*, April, 1884.)

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# QUARTERLY RETROSPECT OF SURGERY.

PREPARED BY

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*Flat-foot.*—A very common and troublesome deformity is one which is called talipes valgus (planus), or flat-foot. This deformity is due to the falling down of the inner longitudinal arch of the foot. The posterior pillar of this arch is formed by one bone, the os calcis, and the anterior by several, viz., the scaphoid, three cuneiform, and three inner metatarsal bones with their joints. The keystone of the arch is formed by the astragalus. The arch is maintained in position principally by ligaments. The head of the keystone bone is prevented from sinking down by a ligament, the calcaneo-scaphoid which connects the anterior part of the os calcis with the under part of the scaphoid, and also by its connection with the os calcis by the strong calcaneo-astragaloid ligament. The arch is also preserved in some degree by the other ligaments holding the bones together and the plantar fascia.

Now if the astragalus or key-bone descends from any cause, the plantar arch is lengthened and the foot is flattened, and the

more the bone descends the more the foot is flattened and the weaker it becomes, because less favourably arranged for bearing weight. The cause of the descent of the astragalus is the stretching of the ligaments which support it and the arch of the foot. Now there are two periods of life when flat foot is most likely to come on. 1st, In infancy; if weakly children be put on their feet too early, the ligaments are stretched, the arch is lengthened, and the astragalus descends in an inward direction. 2nd, At about the age of puberty, when the body increases rapidly in size and the various fibrous structures are softened and stretch easily, the arch of the foot is frequently destroyed, especially if individuals at this critical time are obliged to carry heavy weights or to stand for long periods.

When the arch of the foot is lost, the patient in walking loses his elastic step, the foot is raised as a whole, the spring of the toes being lost. The continual stretching of the ligaments and the pressure of the head of the astragalus on the muscles and nerves of the sole, of course, would also cause considerable pain, for which the individual consults a surgeon. The pain is often, especially after walking, very severe. It is also naturally worse at night than in the morning. In the early part of the day the arch is partially preserved by the sole and flexor muscles, when these get tired out the ligaments are put on the stretch and the pain commences.

In severe cases, as lately pointed out by Prof. Ogston (*Lancet*, Jan. 26th, 1884), a still further deformity ensues:— The heel becomes raised, giving the foot what he calls a canoe shape. This is due to the action of the calf muscles tilting the os calcis up, as owing to the flatness of the foot they cannot raise the foot on the toes and so throw the body forwards. The astragalus becomes altered in shape. The changes are confined principally to its head and neck, the neck is much shortened owing to pressure on the head, whose upper and outer part is pressed against the scaphoid and hence an abnormal foot is formed. Mr. J. Symington (*Jour. Anat. and Phys.*, October, 1884) has lately fully described the deformities existing in flat-foot, and he gives results of a dissection of one examined by

himself. I refer my readers, who wish for further information, to his paper and the works of C. Hueter and G. Hermann von Meyer. Heretofore the treatment of flat-foot has been very unsatisfactory. In recent cases, prolonged rest, especially the avoidance of standing still and carrying weights may, with tonics, prove of some use. The wearing of flat-heeled boots, with a steel spring or waist to the boot, and an inside pad of rubber or leather to support the inner side of the foot is often beneficial.

Mr. Walsham (*Lancet*, Jan. 26th, 1884) describes a useful kind of valgus boot. He fixes a broad rubber band to the inside of the "uppers" of the boot on the outer side; this crosses under the sole of the foot opposite the calcaneo-scaphoid articulation; it is then carried up on the inner side of the foot to just above the top of the boot, and then by means of a leather strap and buckle is secured to the calf piece. He uses a valgus pad also which he slips over the rubber band. Some surgeons advise the use of the actual cautery to inner side of foot to hasten the shortening of the ligaments; of this method of treatment I have had no experience.

Mr. Willett, (Vol. XVIII., St. Barth. Hosp. Rep.), in severe cases advocates the forcible replacement of the bones of foot under an anæsthetic, and then placing it in plaster of Paris in a state of extreme inversion.

In some very severe cases where there is alteration in the shape of the bones and the patient cannot afford to undergo a prolonged course of treatment, other measures are necessary, and Professor Ogston, of Aberdeen, (*Lancet*, Jan. 26th, 1884), has devised a new operation for such cases. He advises cutting down on the astragalo-scaphoid joint, removing the articular surface of scaphoid and astragalus, and after placing them in good position, endeavouring to get bony union between them. He keeps the bones in position by ivory pegs. This is, in fact, an excision of the astragalo-scaphoid joiut, and he advises it to be performed with strictly Listerian precautions. Prof. Ogston has performed this operation seventeen times; the patients, without exception, remained free from fever during treatment.

They all were benefitted by the operation, and in most of them bony ankylosis and a painless arch were obtained. Most of them resumed their laborious occupations.

Dr. Hermann von Meyer (*Studien über den Mechanismus des Fusses*), Professor of Anatomy at Zurich, after a careful examination of the normal and of the flat-foot, anatomical as well as clinical, comes to the following conclusions which, as may be seen, are not in agreement with views generally accepted. He says that flat-foot does not depend on destruction of the arch of the foot, but on a valgus position of the foot, and chiefly of the os calcis. He holds that deformity is not due to relaxation of the plantar ligaments, but depends rather on exaggerated rotation inwards of the astragalus, and on subsequent changes in the plantar bones due to atrophy, resulting from mutual pressure. The fore part of the foot is also turned upwards and outwards.

Mr. R. Clement Lucas (*Lancet*, March 3rd, 1884), says that the flat-foot and weak ankles of puberty are always associated with rickets and albuminuria. This condition is characterized by relaxed ligaments and also some enlargement of the epiphyses. He also states that this form of rickets with albuminuria is invariably associated with masturbation. He remarks that the absurdity of treating such cases merely by mechanical appliances, &c., when there is an underlying habit causing a general constitutional disease, is very obvious. He never treats a case of flat-foot, knock-knee, or lateral curvature, without first examining the urine, and in the majority of cases he finds that albumen is present. This condition in boys, Mr. Lucas says, is most frequently seen about 15 years of age. Mr. Lucas gives two cases in support of his theory. There may be a modicum of truth in what Mr. Lucas says, but his assertion as to the cause of flat-foot and knock-knee is altogether too sweeping, and will not be accepted without much more evidence than is offered by Mr. Lucas.

*Osteotomy for Genu Valgum.*—Dr. Wm. MacEwen of Glasgow read a paper on this subject before the International Medical Congress, held in Copenhagen in August last. This

paper has been published in the *Lancet* of Sept. 27th. Dr. MacEwen first invited an expression of opinion on the following points: 1, The various methods of performing osteotomy for genu valgum and their comparative qualities. 2, The results of these operations. 3, Does the deformity return after it has been rectified by osteotomy? and if so, under what circumstances?

(1) As to the first point, should the intra- or extra-articular method be adopted; and should the tibia or the femur be selected for the operation—in other words, should Ogston's operation and its modifications or the supra-condyloid method be preferred on the femur; and if the tibia be selected, should Billroth's or Schede's operation be performed? and, lastly, which of these four operations is the preferable one?

(2) The results of the operation—Dr. MacEwen presented a table of 1,118 cases, or rather limbs, operated on by 37 surgeons. Eleven surgeons used Ogston's operation on 525 limbs; twenty-two surgeons used MacEwen's method exclusively and eleven occasionally; these 33 surgeons have operated on 580 limbs. In the other limbs operated upon, Chiene's and Schede's methods have been used. In these cases the accidents during the operation have been as follows: Hæmorrhages in two of McEwen's, thirteen of Ogston's, and one of Chiene's. The knife was broken off in the joint in one of Ogston's. Thirty-four out of the 37 surgeons used spray and other Listerian precautions, while three conducted the operation by the open method. Thirty-two cases of MacEwen's operation afterwards suppurated, eight cases of Ogston's, and one of Chiene's—that is, 41 out of 1,118 have suppurated. Five fatalities after McEwen's operation, though some of these were not directly due to the operation,—so there were 1,113 recoveries out of 1,118 cases.

With regard to the utility of the limb, in seven cases there was ankylosis, and in two (Ogston's) bow-legs resulted; all the others were good.

(3) Relapses—In seven cases relapses occurred; in one of Mr. Chiene's cases amputation had to be performed from the onset of gelatinous degeneration of the synovial membrane.

The average duration of the treatment was three months.

Dr. MacEwen then gave the statistics of his own operations. He had, up to July 31st, operated on 804 limbs in 490 patients (ranging in ages from 7 to 46 years), making 820 osteotomies in all for genu valgum. The supra-condyloid method was performed alone, in 810 limbs. The operations were all conducted under the spray and with strict Listerian precautions. In 8 cases suppuration took place. For the last three years no case has suppurated. Two of the patients died. Dr. MacEwen stated that he had performed osteotomy 1800 times in 1267 limbs, on 704 patients, with five deaths—two from diphtheria, one from tubercle, one from pneumonia, and one from enteric fever. In all the recoveries, there was improvement in the form, strength and utility of the limbs. Only two cases relapsed. The average duration of treatment was six weeks in the splints and two in the wards afterwards. The combined statistics of Dr. McEwen's operations and those of other British surgeons for genu valgum give 1384 limbs operated on, with ten deaths *after*, though not all *from*, the operation.

In the discussion which followed the reading of the paper, Prof. Ogston of Aberdeen said he had not altogether given up his own operation, because he was most familiar with it, and did not like to throw it over altogether; but he had for some years past told his students that Dr. McEwen's operation was the best, and he wished to make to that meeting of the congress a similar announcement. He would advise every person who wished to osteotomise for genu valgum to adopt it in preference to his (Dr. Ogston's) own.

Prof. Chiene of Edinburgh could not go the length of Professor Ogston in throwing up his operation altogether. Still, on his return to Edinburgh he would give Dr. MacEwen's a fair trial.

Prof. Schede (Hamburg) accepted Dr. MacEwen's operation; in fact, in most cases he had substituted it for his own. Still, he thought that in many cases the tibia was involved; he therefore, in these cases, performed his own operation.

Mr. Bryant (London) said there was now no doubt that MacEwen's operation was the best one.

Dr. Robin (Lyons) showed an apparatus whereby MacEwen's operation could be performed without a wound.

[For the benefit of those readers who have not kept themselves posted as to the various operations for g. a valgum, I might mention that Ogston's operation consists in obliquely chiselling off the *inner condyle* of the femur and then forcibly straightening the bent limb and fixing in splints. MacEwen's operation is that of dividing with a narrow chisel the *shaft* of the femur above the condyles, from the inner side, just above the epipysal line, then straightening it forcibly, and fixing it in the corrected position for some six weeks.]

It certainly is very creditable to Prof. Ogston that he should so gracefully acknowledge that MacEwen's operation is a better one than his own. The other speakers made the same acknowledgment, though they did not so completely embrace MacEwen's operation as did Prof. Ogston. There is no doubt in the minds of the great majority of surgeons that MacEwen's operation is the best and simplest, as well as the safest. He himself has been marvellously successful with it. In the hands of others, owing, as Dr. MacEwen remarked, to his directions not being exactly carried out, accidents have happened. Several cases of death from hæmorrhage and from ulceration of a splinter of bone into the artery (popliteal) have lately been reported in the medical journals. Dr. MacEwen lays great stress on the direction of the cut, which should be from behind, forwards and inwards, for if the direction be from within, outwards and backwards, the popliteal might be divided. In Canada, this operation is not often called for, people not being so subject to rickets' owing to the better methods of living. Rickets are seen often enough among the French Canadians, but they are unwilling to have operations performed, or to have any interference with what "Le Bon Dieu" has sent them. In large centres like New York, the operation has frequently been performed, especially on the members of the foreign communities, such as the Italians, who are very subject to rickets.

Dr. V. P. Gibney, at a recent meeting of the New York Academy of Medicine (*Phila. Med. News*, Dec. 6, '84) read a

paper on *The Surgical Management of Rachitic Deformities of the Lower Extremities*, in which he said, in cases where osteotomy was necessary for genu valgum, MacEwen's operation is the only one that should be performed. Many of the surgeons who discussed the paper spoke most favorably of MacEwen's operation.

*Tracheotomy for Croup.*—Dr. Cocks (*Archives of Pediatrics*, Vol. I, No. 1) of New York relates his experience of 15 cases, which were all performed at the patient's houses, with no more skilled nursing than was afforded by patient's relatives. Eight of the 15 cases recovered. Two died on the first day, two on the second, two on the third, and one on the fourth day. Dr. Cocks or his assistant remained with the patient from three to six hours after the operation, and during that time instructed the amateur nurse in the conduct of the case. The room temperature was maintained at 80°F., a warm sponge was kept over the tube, and steam spray was kept constantly going. The nurse was directed to take out the inner tube every 15 minutes, soak it in hot water, and pass a muslin rag through it. A feather is used to clear the outer tube. After the third day the tube was taken out twice daily and cleaned. The tube was finally removed on the sixth to the tenth day.—*Lond. Med. Record*, Aug., '84.

*Splenectomy.*—At the thirteenth congress of German surgeons Von Hacker of Vienna exhibited a lymphoid sarcoma of the spleen, which had been successfully extirpated by Billroth. Before removal, the oval tumor measured ten inches vertically and more than seven inches transversely. On median laparotomy, the convexity of the tumor was found to be free from attachments, but the omentum and a coil of intestines were adherent to the hilus. The splenic artery and vein were divided between two ligatures, and rather more than an inch and a half of the adherent tail of the pancreas required removal with the thermo-cautery. This is the first splenectomy ever performed for sarcoma.

Credé, at the same congress, exhibited a man whose spleen he had removed two years and a half previously for a large cyst. In this case, as in the preceding one, there had been no enlarge-

ment of the thyroid or lymphatic glands, and the man was apparently quite well.

In the discussion which followed, Czerny of Heidelberg stated that the woman from whom he had removed a movable hypertrophied spleen five years previously was still alive, and exhibited no changes in the blood or in the organs above referred to. Hence we may infer that the spleen is not absolutely essential to life, and that its functions, after extirpation, is assumed by the medulla of the bones and other lymphatic organs.—*Phila. Med. News*, Aug. 23rd, 1884.

*Operative Treatment of Malignant Affections of the Rectum.*—At the recent meeting of the International Medical Congress, held at Copenhagen, Prof. Esmarch read a paper on the above subject, in which he laid down the following propositions:—1, In the treatment of cancer of the rectum, the same principles hold good as in the treatment of cancer of other parts of the body. 2, Extirpation should be as early and as complete as possible. 3, The more the surrounding healthy parts are removed with the diseased, the greater reason there is for hoping that recurrence will not take place at all, or will be long delayed. 4, Experience teaches that early and thorough removal may be followed by permanent recovery. 5, As, in cancer of the rectum, the lymphatic glands are secondarily affected at a comparatively late period, operation may be followed by permanent success when the disease has lasted some time, and has become extensive. 6, The prognosis in regard to the return of the disease is good, in proportion to the slow development of the new growth, the delay and the appearance of distressing symptoms, and the completeness of the operation. 7, The simple cylinder-celled cancers, which proceed from the more superficial layers of the mucous membrane, generally give a better prognosis than the forms with small alveoli and the gelatinous forms, which more rapidly enter the deep submucous layers. The greater the disposition to the deposition of gelatinous degeneration, the more malignant the case. 8, Extirpation of a cancerous nodule from the wall of the rectum is sufficient only when the nodule is well circumscribed and movable, and when only a part of the wall of

the rectum or anus is implicated. 9, In all other cases, amputation of the rectum beyond the points of growth is indicated. 10, The entire rectum, as far as the sigmoid flexure, may be removed with good results. 11, The principal dangers of the operation are—*a*, hæmorrhages; *b*, acute, purulent and ichorous inflammation of the connective tissue. 12, These dangers are to be combatted (*a*) by very careful hemostasis during the operation; (*b*) by very careful primary disinfection and provision for the free escape of the secretions of the wound (by drainage and the avoidance of cavities). 13, In amputation of the rectum high up, opening of the peritoneum is unavoidable, but peritonitis does not generally follow if the opening be at once closed by suture under strict antiseptic precautions. Drainage of the peritoneal cavity is indicated only in exceptional cases. 14, The progress of operative skill has essentially diminished the dangers of the operation, the death-rate having fallen from 50 to 20 per cent., and even lower. 15, The functional disturbance following amputation of the rectum is slight in comparison with the distress caused by the cancer. Incontinence of fæces is not complete, especially when the external sphincter has not been removed. Systematic cleanliness and the use of a suitable apparatus for closure commonly relieve the difficulty. 16, Resection of a portion of the intestinal tube in its whole circumference, followed by suture of the two ends of the intestine, is not to be recommended, since the lower portion of the intestine generally sloughs. It is better to preserve the external sphincter and fasten the end of the amputated rectum to the lower edge of the wound. 17, Extirpation of cancer of the rectum is, in all cases, rendered easier by dividing the posterior wall of the gut as far as the coccyx. Removal of the coccyx is generally unnecessary.

In the discussion which followed, Prof. Verneuil (Paris) stated that he had done his first colotomy thirty years ago, and his first extirpation fifteen years ago. He found that removal of the disease was impossible. He found that division of the cancerous stricture removed all complications, and gave all the advantages of colotomy. The whole length of the stricture

must be split. The incision was made from the tip of the coccyx by a thermo-cautery plunged in to meet the tip of the finger, hooked above the stricture. Through this channel, by a cannula if necessary, an écraseur chain was passed, and the rest of the division was completed. No blood was ever lost, and the symptoms at once ceased. No deaths followed.

Prof. Trelot (Paris) denied the advantage claimed for rectal extirpation, and pointed out the rapidity and malignity of recurrence.

Mr. Sampson Gamgee (Manchester) preferred the operation of inguinal colotomy.

Prof. Volkmann (Halle) observed that colotomy, even in Mr. Bryant's hands, was a dangerous operation, and that the statistics of extirpation were better than those of colotomy according to Bryant. Cancers in the rectum had little tendency to infiltrate early and recur soon. Even in desperate cases he had had no return under long periods, in one case not for ten years. The results of excision of the rectum had improved, and would go on doing so with improved methods. Asepsis and disinfection were normally powerful when the peritoneum was not opened, but when this was opened the dangers were great and cleansing difficult. But dangerous as extirpation was it was not so bad as colotomy, discomfort being hardly felt except in diarrhœa. The selection of cases, he said, was also important, and he did not operate on any case he could not reach the upper end of the disease by bi-manual exploration under anæsthesia, the incision should be both forwards and back to the coccyx, the anus alone being left. No attempt should be made to unite the upper with the lower end, which should be stitched well down and the cavities at the side thoroughly drained.

Prof. Kuester (Berlin) said that in extirpation he always applied sutures when the peritoneum had been opened. Cauterization was a proceeding from which good results were got in most of the cases where a permanent cure could not be expected. He would select either this or extirpation, very seldom colotomy.

In a paper on the "Statistics and Operative Treatment of

Cancer of the Rectum (*Archiv für Klin. Chir.*, Bd. 29, Heft 3) Dr. G. Heuck, of Heidelberg, gives reports of forty-three cases of this affection treated by Prof. Czerny, during a period of six years. In two only were the patients under thirty years, and in twenty-nine cases the disease commenced between the ages of forty and sixty years. Thirty were males and thirteen females. In one case only was there any secondary cancerous disease of the inguinal lymphatic glands. In twenty-five cases a radical operation was performed, and the diseased portion of the rectum excised. Although the peritoneal cavity was opened eleven times only one case resulted in death. Of the nine patients who had remained free from relapse up to the time of publication of the paper, two had survived the operation for more than four years. One was alive after twenty-one months, three after two years, one twelve months, and two at the end of six months. Relapses occurred in fifteen of the twenty-five cases, sixty p. c. In every one of these cases the disease returned within twelve months after the operation. The average duration of the disease from its reappearance to the death of the patient in the fifteen cases was 11·7 months. Wounding of the peritoneum, it is stated, is not attended with much danger, if care be taken by stitching the remaining portion of the gut to the external skin, to prevent fecal matter from coming in contact with the raw surface of the wound. The only contra indications to extirpation of cancerous disease of the rectum are stated by Dr. Heuck to be adhesion of the tumour to parts surrounding the rectum, extreme debility of the patient and the presence of secondary growths in the internal organs.—(*Lond. Medical Record*, April 15th, 1884.)

According to an editorial in the *Phil. Medical News*, Oct. 13th, 1883, it is stated that besides Czerny's twenty-five cases, 198 others have been placed on record. Of the 223, 180 recovered, and 43 (19·3 p. c.) died; 64 remained well for periods varying from two months to ten years. In thirty-five cases there had been no return of the disease for two years and upwards, thirteen had remained well for between five and ten years, so that 15·9 p. c. were in all probability permanent cures.

Mr. Jas. E. Adams (*Brit. Med. Jour.*, Aug. 16th) recommends in cases of cancerous disease of the lower end of the rectum, the performance first of colotomy, and then when the patient has recovered from this, to excise the malignant growth as quickly as possible. He has carried out his method in one case, the patient being alive more than two years after the operation and living in comparative comfort although the disease had returned.

There is no doubt that extirpation of the rectum is in much favour with the German surgeons, but is not so often performed in France or England—colotomy being preferred. There are no doubt many cases where, if seen early enough, extirpation would be the best method of treatment, but there are not a few cases where it is impossible to reach well above the growth with the finger, and these cases call for colotomy, or the French operation of posterior division of the cancerous stricture.

Dr. Fenwick, of Montreal, has extirpated the rectum some half dozen times, and in one case, although the operation was performed some eight years ago, the patient is still alive.

*Colotomy.*—In connection with cancerous disease of the lower end of the rectum it would be as well to note what has been done lately in regard to colotomy, and to see what advantages, if any, it possesses over other operative procedures and the expectant treatment.

At the 13th Congress of German surgeons, Dr. Madelung, of Rostock, reported that last winter he had an opportunity of performing a modification of colotomy by which the utility of this operation in cases of cancer is considerably increased. Instead of making a small opening in the colon this surgeon cuts through the whole thickness of the gut and then secures the central end to the abdominal wound, whilst the peripheral end is closed and allowed to sink into the abdominal cavity. Great care must be taken to distinguish the centripetal from the centrifugal portion of the gut. The chief advantages of this operation are the protection of the cancerous rectum against the mechanical, septic, and chemical irritation of fecal

matter, and its frequent painful accumulation between the cancerous stricture and the sphincter ani. There is less tendency to prolapsus, and there is also no regurgitation of the fecal matter which in ordinary colotomies accumulates below the artificial anus, and so the surrounding skin can be kept clean. This modification is not applicable to late stages of the disease, when the gut has become over-disintended and the patient much exhausted. (*Beilage zum Centralblatt fur Chirurgie*, No. 23, 1884.)

Mr. Bryant, of London, read a paper on *Lumbar Colotomy* before the late International Medical Congress, held at Copenhagen. He dealt with the operation as a *curative* measure in syphilitic and simple ulcerations of the rectum and colon which resist other treatment, including recto-vesical fistula; as a *remedial* measure in volvulus of the sigmoid flexure as well as obstruction from tumours. He held that in all cases of cancerous stricture of the rectum or colon, which are not amenable to lumbar colectotomy or anal excision, right or left lumbar colotomy is strongly to be advocated, as it retards the progress of the disease, frequently prolongs life five or six years, and relieves suffering. It is necessary to perform the operation before the pernicious effects of obstruction occur. He submitted to the congress statistics of 82 of his own operations, of which sixty were performed for cancerous stricture, nineteen for non-cancerous stricture and ulceration of the rectum, one for volvulus, and two for obstruction due to tumours. Left lumbar colotomy was performed in seventy-seven, right in five. Thirty-three or forty per cent. died within a month of the operation; sixty per cent. of the whole number operated on received benefit from the operation; of the forty-nine successful cases sixteen died within six months, eight lived six to twelve months, twelve from one to five and a-half years, five from five and a-half to fourteen years, and eight left the hospital convalescent. Mr. Bryant, in the last edition of his *Practice of Surgery*, has printed the tables accompanying this paper, and to which I refer readers who wish for further information.

In the October number of the *American Journal of Medical*

*Sciences*, Dr. W. R. Batt contributes a very valuable paper on *Colotomy*. He gives the history of the operation and describes the various methods of performing it. He has collected 351 cases, of which he gives an analysis, and asserts that these statistics show most conclusively that the dangers of the operation are very few, and that the number of recoveries depend very greatly on the nature of the affection for which it is performed; 215, or 62 per cent. of the total number (351), recovered.

*Excision of Cæcum.*—Mr. Walter Whitehead recently excised, at the Manchester Infirmary, the cæcum and colon of a man suffering from a carcinomatous growth encircling a large extent of the bowel. After excision, the ileum was attached to the skin below and the transverse colon in the skin above, in the primary incision made through the abdominal wall, just outside the rectus. The operation was very tedious and difficult, occupying nearly two hours. It was conducted on Listerian principles. Four days after the operation the patient was free from any untoward symptom.—(*Brit. Med. Jour.*, Nov. 8, 1884.)

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# QUARTERLY RETROSPECT OF SURGERY.

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*Surgery of the Kidney.*—At a meeting of the Medical Society of London, held on February 9th, Mr. Henry Morris read a paper opening a discussion on Renal Surgery. In this paper Mr. Morris limited himself to a discussion of the surgical aspect of renal calculus. He did not discuss the relative merits of lumbar or abdominal nephrectomy. The first part of the paper was taken up with the difficulties of the diagnosis of renal calculus. Many cases were mentioned where the kidney had been cut down upon, and no stone found. In many of these cases exploration was no doubt imperfect, and it is now held that an exploration is not complete until the kidney has been incised, and through this incision the pelvis and calyces thoroughly explored with the finger. In this connection, Mr. Morris pointed out the importance of searching the ureter for impacted calculus, and mentioned a case (reported in *American Journal of Medical Science*, October, 1884,) in which he himself had removed impacted stone from the ureter near its entrance into the bladder. The operation of simple exploration of the kidney without incision of its substance is in reality a harmless operation. The incision into its substance adds to the risk of the operation, but

makes the diagnosis sure; and in cases of early scrofulous disease, which are so frequently mistaken for renal calculus, a free exit would be given to the pus, and the free drainage would be of great service. Mr. Morris, in his address, added but little to what is already known regarding the diagnosis of renal calculus. Its diagnosis will always be difficult and uncertain, and many kidneys, apparently healthy, will yet be cut down upon. The operation, even when performed in these cases, often relieves the pain and other symptoms, the nerves involved being probably cut across in the incision made to reach the kidney.

Mr. Morris advised removal of the kidney only when other means of relief failed, as nephrectomy was always a very serious operation and should not be lightly undertaken. He did not consider nephrectomy justifiable in floating kidney. He held that with regard to wounded kidneys many circumstances had to be taken into account, but if the indications of injured kidney or pelvis of kidney are marked and the gravity of the case urgent, an incision should be made over the kidney at once and drainage or nephrectomy performed according to circumstances. Median nephrotomy or lateral prostatotomy should be performed if clots of blood accumulate in the bladder or are forced into the urethra, giving rise to obstruction, pain, and distress. In cancer of the kidney, Mr. Morris held that nephrectomy was seldom justifiable.

When large abscesses had formed where peri-nephritic suppuration had occurred, nephrotomy, followed by antiseptic irrigation and drainage, was advised. Nephrectomy should not be performed in cases of tubercular disease if the system at large was affected. Mr. Morris thought that if the disease was limited to one kidney and there was danger of exhaustion from suppuration, excision of the kidney might be advantageously performed after nephrotomy had failed. The difficult point, however, is to tell which kidney is affected, and when only one kidney exists. Tuschmann's instrument for closing one ureter was alluded to, but Mr. Morris thought such methods were likely to be of little value. He also stated that in 8,068 autop-

sies there were but two instances of congenital absence and one of congenital atrophy. (In a male patient who died recently in the Montreal General Hospital of injury to the spine, only one kidney, the right, was found. This is the first case, as far as I know, ever met with in Canada.)

In hydronephrotic tumours of the kidney, puncture or nephrotomy was advised before proceeding to extirpation. (*Lancet* and *British Medical Journal*, Feb. 14th, 1885.)

In the discussion which followed, nothing new was elicited. Mr. Durham stated that he believed he was the first to cut down on a kidney with a view to removing a stone. None was found on examination, though the symptoms were most characteristic. Mr. Knowsley Thornton had found hæmaturia absent in one case of stone in the kidney under his care. He thought frequency of micturition was more often associated with scrofulous kidney than with calculus of the kidney. He advocated in excision of the kidney the bringing out of the ureter. He had now performed nephrectomy eleven times, with success in all, but in the six in which he brought out the ureter the recovery was most rapid.

In a letter published in the Philadelphia *Medical News*, Mr. Knowsley Thornton gives a synopsis of these cases of nephrectomy all performed by abdominal section. The cases were :— Calculous disease of kidney, three ; scrofulous disease of kidney, three ; hydronephosis, two ; sarcoma of kidney capsule, one ; removal of kidney for wound of ureter during ovariotomy, two. He mentions also that he has had four nephrotomies,—one for cyst of kidney and three for scrofulous disease—with one death and one subsequent nephrectomy ; also three successful nephrotomies. Professor Chiene of Edinburgh (in *British Medical Journal*, February 7th, 1885), reports a case of successful nephro-lithotomy in a man aged 29. The operation was performed under the spray ; the stone was detected by passing in a needle, the kidney substance was then scratched through with the finger nail and the stone removed, by means of a vulsellum, with considerable difficulty. There was considerable oozing after the operation, and convalescence took place in five weeks. The stone weighed 48 grains.

In the remarks which follow, Mr. Chiene says the symptoms which encourage a surgeon to explore the kidney where no swelling exists are (1) long-standing pain in one loin, often intermittent in character, the pain shooting down into the inguinal region and testicle; (2) blood in the urine; (3) absence of any calculus in the bladder to account for the symptoms. If the stone be in the pelvis there will probably be pus in the urine, and the symptoms will be more severe and constant than if the stone be fixed in the substance of the kidney. Mr. Chiene also gives a *résumé* of the cases performed in Great Britain, and alludes to the celebrated case of Hobson, which has already been alluded to in this Retrospect.*

Dr. E. Sonnenburg reports (*Berlin Klin. Wochensch.*, Nov. 24) the case of a woman, aged 52, who had suffered from pain in the right loin since last Easter, accompanied by fever, wasting and polyuria. She came under the care of Dr. S. in August, when the presence of a large fluctuating tumour in the right half of the abdomen was ascertained, and on aspiration pus was drawn from it. Nephrectomy by abdominal incision was performed on August 25th. The operation was difficult and tedious, the thin wall of the cyst rupturing in the removal. The whole pedicle was secured to the wound, but it was found impossible to secure the peritoneum. The organ was converted into a chambered pus-containing sac, with numerous thin-walled outlying cysts, and a large branching calculus was lodged in the dilated pelvis. Hardly any renal tissue remained. Great collapse followed, terminating in death on the second day, and during the whole interval no urine at all was secreted. There was no peritonitis, the left kidney weighed 190 grammes (8 oz.), was ænemic but histologically almost normal. The fatal issue, Dr. Sunnenberg thinks, could not be attributed to shock of the operation and collapse alone, but that the condition of aneuria, the cause of which remains unexplained, was in the main answerable for this result (*Lancet*, Nov. 29, 1884).

In a paper read before a recent meeting of German natural-

* December, 1881.

ists and medical practitioners at Magdeburg, Von Bergmann read a paper on "Extirpation of Kidney." He said the operation is no longer a rare one, for, since Simon's first case, it has been performed 121 times. It may be indicated in a case of malignant tumour or in one of pyelo-nephritis. In the former class the operation is a very dangerous one, as it is necessary to perform laparotomy and to make a double incision of the peritoneum. In 24 cases of this kind, death occurred in 17 soon after the operation—in five of which it was due to hæmorrhage; only four patients recovered. Extirpation of the kidney has much better results in cases of pyelo-nephritis, as of 40 cases 20 have been cured. Von Bergmann does not approve of simple incisions in these cases. During the last 12 months he has extirpated the kidney four times, in each case successfully (*Centralblatt für Chir.*, No. 45, 1884; quoted in London *Medical Record*, Feb. 16, 1885).

For readers interested in the surgery of the kidney, I give the following references:—

*Lumbar Nephrectomy.*—Paper read by Mr. Henry Morris before Royal Medical and Surgical Society of London, with discussion (*Lancet*, Nov. 29, 1884).

*Nephrectomy in Italy.*—*Lancet*, Dec. 13, 1884; Davy on a case of "Excision of the Kidney," *British Medical Journal*, Oct., 1884, p. 757; Reeves on "Treatment of Ruptured Kidney," *Lancet*, Oct., 1884, p. 588; "Lectures on Cases illustrating Renal Surgery," by Arthur E. Barker, *Lancet*, Jan. 17 and 24, 1885.

*Tracheotomy.*—At a meeting of the New York Academy of Medicine, held Dec. 4, 1884, Dr. Joseph E. Winters read a paper entitled, "Is the Operation of Tracheotomy dangerous in Diphtheritic Croup? When should the Operation be Performed?" The author said, at a recent discussion in the Obstetric section of the Academy, it was held that tracheotomy was the most dangerous of all the operations in surgery, and he could not permit this view to pass unchallenged. The danger from hæmorrhage, he thought, had been greatly exaggerated. After quoting a number of authorities to prove that tracheot-

omy was not a dangerous operation, he next proceeded to the enquiry of the manner in which diphtheritic croup caused death. He said in a large proportion of cases the cause of death was the prevention of the entrance of air to the lungs, and that in these cases tracheotomy afforded a fair chance of recovery. When the operation failed to save life it was either because it had been resorted to too late or from want of sufficient care in the after-treatment. In cases of croup the larynx was given rest, and the operation did not injuriously affect the course of the disease. He advocated an early resort to the operation before there was venous congestion of the lungs. The indications for the operation are labored respiration, recession of chest walls and alteration of voice, and when ipecacuanha is no longer successful in producing vomiting. Early age does not contra-indicate the operation, as the operation has been successful at six and nine weeks. In the prognosis after the operation the following points have weight:—Early age; previous ill health, especially affections of a scrofulous nature; the presence of scarlatina or measles in the neighborhood, enlarged lymphatic glands and nasal diphtheria. If after the operation the respiration was not free and deglutition was difficult, it was a bad sign. The conclusions of the paper were as follows:—That tracheotomy, of itself, if performed with care, involved little danger to life; the operation should be performed early, but it was never too late to operate; and, finally, that no patient who died after the operation would have lived if it had not been performed. In the discussion which followed the reading of the paper, Dr. Jacobi said one of the dangers of tracheotomy was from bungling operating; the operation was not necessarily a bloody one if carefully and deliberately performed; if hæmorrhage should accidentally occur, it was better to arrest it before opening the trachea, as the entrance of blood into the trachea was more injurious than is generally supposed, and might result in broncho-pneumonia. He thought it a mistake to cut through the isthmus. Since the introduction of anæsthetics, the operation had become much less dangerous. He preferred chloroform to ether. Dr. Jacobi did not agree

with Dr. Winters as to the time of the performance of the operation. Whether the case was one of diphtheritic croup or not, whenever there was laryngeal stenosis, accompanied by a considerable amount of recession, with well-marked and increasing dyspnœa, especially in the morning, with cyanosis and a frequent irregular pulse, the indication was to perform tracheotomy whether the obstruction was due to presence of membrane or not. Pneumonia was a contra indication. In cases where the symptoms above-mentioned existed to a limited extent, or were absent, it was better to wait; and there was all the more encouragement to do this on account of the recent advances which have been made in the medicinal treatment of croup. The bichloride of mercury, especially, had proved of great service. In ordinary cases of croup, he thought it was safe to delay operating until the bichloride had been given a fair trial. The percentage of recovery without tracheotomy had in his practice been of late much greater than ever before. The causes of death in fatal cases after operation were: First—Diphtheritic sepsis; second—complications of diphtheria as paralysis, nephritis with uræmic poisoning, adenitis, fibrinous pneumonia; third—broncho-pneumonia, or œdema of the lungs; and fourth, the descending diphtheritic process.

Dr. Lewis Smith said the older the child the less danger from tracheotomy. In two conditions the danger was especially great. The first was when the patient was nearly moribund; here the operator, being hurried, does not take sufficient precautions for the control of hæmorrhage; the danger was also greater when the operation was performed without anæsthetics. He agreed with Dr. Jacobi in operating, whether membrane was diagnosed or not, if there were symptoms of increasing stenosis. In cases where the larynx became affected late (fifth or eighth day) the membrane did not form so rapidly, and there was not the same urgent necessity for operating, and it was proper to defer operating until a fair opportunity had been offered for the action of remedial measures. In the first rank he placed alkaline inhalations, to which he believed *tripsin*, which formed an important constituent of the *extractum pan-*

*creatis*, could be added with advantage. Calomel was useful in the first stage, and good results had been derived from the use of bichloride of mercury. Tubage, which was first introduced by Trousseau, had been revived with a fair amount of success as a substitute for tracheotomy. He knew of at least one case that had been saved by it.

Dr. Johnson H. Ripley believed tracheotomy for croup in young children was one of the most dangerous operations in surgery. He had performed it over 100 times, and had met with almost every complication. He thought he had saved lives by assisting inexperienced operators, but he had seen a number of patients die on the table. In four of the fatal cases the operation was performed by men of marked surgical ability. In one of these the internal jugular vein was punctured; and in one case he had seen a knife plunged into the spinal cord. He said that men who operated early had the greatest success, because these early operations were usually unnecessary. The most common cause of death after the operation was bronchial croup, next nephritis with uræmic poisoning, and respiratory or cardiac paralysis.—(Condensed from *Medical News*, Dec. 20, 1884.)

This discussion is most instructive, and shows the great diversity of opinion which exists as to the safety of the operation. I certainly hold, with Dr. Winters, that there is no danger in the operation itself if performed carefully; also that, when performed by men accustomed to operating, there need be no more fear of hæmorrhage here than in other operations. Such an one can cut down on the trachea, even in children with thick necks (if he has one good assistant), and avoid wounding any important vessel. As the vessels are exposed the assistant should draw them aside, and if one be accidentally wounded the bleeding point can be quickly seized with Pean's forceps and the hæmorrhage immediately arrested. I have performed the operation a number of times on all kinds of necks, and have rarely lost more than a teaspoonful or two of blood. If a large vein, as is sometimes the case, crosses the line of the incision, it ought to be cut between two ligatures

placed on it. I have never yet seen a middle thyroid in the living, but have frequently seen it in the dissecting-room; but if met with it could be recognized before incising the trachea—that is, if the operation up to that point is as bloodless as it ought to be and can be. The same may be said of an abnormal innominate or carotid artery crossing the trachea. The reason hæmorrhage is so frequent and occasionally fatal is that the operation is generally performed by men altogether unaccustomed to other operations, who are not used to handle the scalpel lightly and carefully, and who, when hæmorrhage does occur, are unable to combat it, not having acquired that deliberateness with quickness of hand and eye which soon comes to one accustomed to frequent operations in general surgery. Most laryngologists, for instance, look upon tracheotomy as a formidable operation, and, after the skin incision is made, fear to use their scalpel, but instead use a forceps to separate the deep structures, and so displace the parts and make the operation a difficult and tedious one. The cause of death in most of the fatal cases I have met with has been due to the extension of the membrane down to the bronchi; some have died of bronchopneumonia and diphtheritic sepsis, but I have never yet seen a death on the table. I have seen on several occasions, however, apparent death just before the trachea has been opened, probably from heart failure. In these cases, opening the trachea and performing artificial respiration has always brought the patient to. I always open the trachea below the isthmus, and if the isthmus be low down hook it up with a retractor. The trachea below the isthmus is more easily brought into view, the structures about it not being so closely adherent as above, the assistant, as the operation descends, can more easily retract the parts. If no skilled assistant can be obtained, a pair of Pean's forceps clipped on each side of the wound answers admirably. In my experience, death occurs not from the operation but from the disease.

Mr. Ashby G. Osborn, in the *Brit. Med. Journal* of Jan. 17, 1885, reports that in a recent case of tracheotomy, after inserting the tube, he was astonished to find that relief failed to ensue, and the patient, notwithstanding that artificial respiration was

practised, died on the table. A necropsy showed that the tube had been passed down between the trachea and false membrane, thus pressing together the sides of the lining tube of false membrane. This source of danger, from the absence of its mention in text-books, Mr. Osborn thinks, has not often been met with. If Mr. Osborn had made it a practice, before introducing the tube, to hold the cut edges of the tracheal incision apart with hooks for a few minutes, and search for false membrane at the site of and below the wound with forceps, this accident would not have happened. It seems to me that most operators insert the tube too quickly; there is no reason for hurry, and mucus and false membrane can always be removed from the trachea better before the tube is inserted than after.

*Diagnosis of Perineo-Tibial Sprain.*—M. Labbé, of the Beaujon Hospital, says there are four traumatic lesions which are usually found about the ankle. (1) Tibio-tarsal sprain and (2) medio-tarsal sprain, which are easily distinguished from each other, but (3) perineo-tibial sprain or distension of the ligament which unites the tibia and fibula is not so easily distinguished from (4) fracture, with tearing of the external malleolus. In order not to fall into an error which would be decidedly disadvantageous to the patient, it should be noticed that in perineo-tibial sprain the ecchymosis is seen a little in front of the anterior border of the fibula, while in separation of the external malleolus, it is behind the bone, in the depression which separates it from the tendo Achillis. With regard to the pain, in the case of fracture it is seated immediately over the bone itself; but in the case of sprain, the greatest pain is found in front of the anterior border of the bone. It is in these cases that the elastic bandage has such excellent effect.

Marc Sée has recently recommended the treatment of sprain by the elastic bandage. It is the only method, he says, which fulfils the two indications (1) to cause as rapid absorption as possible of the blood extravasated around the joint and (2) to favor cicatrization of the torn ligaments and ruptured parts by complete immobilization. The antiphlogistics and blood-letting formerly advised by Hunter and Guersant only partially fulfil

the former indication. There is the same objection to the movements which Ribe and Bonnet advise for the injured joint. The refrigerants and cold water baths cause contractions of the tissues around the joint and dispel the inflammation, but they are not favorable to the absorption of the infiltrated fluids. Even massage, though superior to the other remedies first mentioned, fulfils only the second indication. The elastic bandage is much superior to massage; its action is continuous, and it favors immobilization of the joint. The bandage should be applied to the skin itself, care being taken to fill up the flat and depressed places with cotton wadding so as to give a uniform surface for the bandage to act upon.—(*Revue de Thérap*, July 15, 1884, quoted in *Practitioner*, Jan. '85.)

For several years past I have treated all sprains of the ankle joint, if seen early, by plaster-Paris bandage applied over the stocking from the cleft of toes to about three inches above the malleoli. By this means immobility and pressure are obtained. In most cases the patient thus treated is able to get about in less than a week.

*Boroglyceride in Ringworm of the Scalp.*—Dr. Shoemaker (*Journal of Cutaneous and Venereal Diseases*, Vol. II, No. 7) in ringworm of the scalp, has the affected parts first washed with a weak alcoholic solution of thymol, naphthol, or corrosive chloride of mercury, every day or two. To the surface thus cleansed he immediately applies a 50 per cent. solution of boroglyceride until the entire scalp is saturated with it. He believes the borax to be one of the most efficacious antiseptic and antiparasitic agents, having at the same time a mild, astringent action, and thus tending to allay irritation and soothe the parts. The glycerine at the same time penetrates and carries the substance into the follicles to the parasites. Glycerine has a great affinity for water, and withdraws this from the tissues, thus depriving the fungus of one of its main elements of development. He cannot speak too highly of this application, from which alone he has observed rapid cures in some early cases of ringworm of the scalp. Boroglyceride is devoid of poisonous qualities, and the most irritable scalp will bear it. It should be applied night

and morning with a sponge or mop, and must be rubbed well into the follicles with the tips of the fingers.

*Treatment of Gunshot Wounds of the Intestines.*—At a meeting of the New York Surgical Society, held January 27th, 1885, Dr. Wm. T. Bull read a paper on "A Case of Gunshot Wound of the Intestines," treated successfully by laparotomy with suture of the intestines. (*Medical News*, February 14th, 1885.) He commenced his paper by stating that the majority of surgeons are still opposed to an exploration of the abdomen in gunshot wounds, notwithstanding the very favorable results following operations for the various abdominal diseases. Most surgeons advocating laparotomy for gunshot wounds have been compelled to frame their conclusions on theoretical grounds alone, not being able to support their views by a single successful case. Dr. Bull finds that up to the last twelvemonth there are but two recorded cases in which thorough abdominal exploration was resorted to by laparotomy. Kinloch, in 1882, opened the belly and sutured five pistol shot wounds in mesentery and intestine; two other wounds escaped observation, and the patient died in thirty hours. Mr. Lloyd, of Queen's Hospital, Birmingham, performed abdominal section for suppurative peritonitis three days after a pistol ball had perforated the small intestine in two places. Death followed in two hours. Last summer, Kocher, of Berne, performed laparotomy for pistol shot wound of the stomach; he sutured the wound, and the patient recovered.

The case reported by Dr. Wm. T. Bull is the second successful case on record, and is briefly as follows:—Wm. E., a truck driver, aged 22, was brought to the Chambers Street Hospital, New York, Nov. 2, 1884, at 10 p.m., suffering from a pistol shot wound of the abdomen, which he had received half an hour before. On admission he was in good condition—temperature, 97·8°; pulse 96, and of good volume; abdomen tender, but not tympanitic or swollen. He was troubled with frequent retching. The wound was not probed, but merely dressed with dry antiseptic dressing. Twelve hours after, when seen by Dr. Bull, he had a pulse of 102 with a temperature of 100·2°, and

respiration 30. He had also severe abdominal pains, and vomited some watery fluid; no blood in urine, and had passed nothing per rectum; abdomen tender all over, but not swollen; rectum normal. Had taken nothing but a little milk, which he shortly afterwards threw up. Seventeen hours after the accident his condition was unchanged, so Dr. Bull, recognizing the importance of early interference and the invariably fatal results following wounds of the intestines, and judging by the increase of pulse temperature and respiration, with pain, vomiting and tenderness, that peritonitis had possibly already commenced, decided to open the abdomen and search for the wounded intestine. The room was heated to 80° F. for two hours before the operation; a spray of 5 p. c. solution of carbolic acid was kept going in the room; all the usual antiseptic precautions were taken in connection with hands, instruments, sponges, etc. A vertical incision was first made into the bullet wound, which showed that it actually perforated the peritoneum; then the usual incision was made in the median line from the umbilicus to just above the pubis. On opening the peritoneum a large amount of bloody serum (two pints) flowed out; this contained blood clots, but no fæcal matter. On the border of the first part of the gut presenting was a slight incised wound of the serous coat only, probably made by the scissors. Three or four feet of intestines were then pulled out of the wound and carefully examined. The intestines and mesentery were tinged in places with flakes of fibrin. The gut pulled out was placed between layers of antiseptic towels, and occasionally drenched with warm water. The gut was slightly congested, but the coils were not adherent. The first wound encountered was about half an inch in diameter, situated midway between the attached and free border of the intestine, several feet from the cœcum. The serous coat was cut through and the mucous membrane lacerated and everted. It bled easily when its edges were separated, but not till then did yellow fæces, the consistency of gruel, escape. In all the wounds this was the condition; the everted mucous membrane acted as a plug, which prevented the escape of fæces. The abdominal wound

was plugged with large sponges, and the wounded part of intestine laid on a towel and emptied of fæcal matter through the wound, and held with both hands by an assistant. The mucous membrane was inverted by making traction with two hooks so as to make the wound hole a longitudinal slit. The peritoneal edges were then brought together by fine sutures, applied according to Lembert's* method; iodoform was rubbed along the line of suture. After removing several more loops, the cavity of the pelvis was empty, and the cæcum, sigmoid flexure, rectum and bladder were, after sponging out a considerable amount of bloody fluid with clots, examined. The bullet was soon found lodged in the upper surface of the sigmoid flexure, close to its mesenteric border. It was immediately beneath the peritoneum, but on removing it the bowel was found to be perforated. Three sutures closed the wound. The open pelvis was then protected with sponges, and more intestine was drawn out. A third perforation was seen, similar to the first in size, but situated near the free border of the gut; then a fourth and fifth close together, and separated only by a bridge of serous membrane; a fifth and sixth wound was found a little further on; these four last-mentioned wounds being all within a length of four inches of intestine. The two wounds together were converted into one, twelve sutures being required to close it; all the wounds treated as the first had been. A seventh wound was found in the intestine still remaining in the cavity; this was closed by five sutures. All the small intestines were now out except the duodenum. The pelvis was then sponged out with a 21 per cent. solution of carbolic acid, the intestines replaced and the line of sutures inspected as returned. The wound in the abdomen was closed by heavy silk sutures passing through the entire thickness of its walls; the incision enlarging the bullet wound was closed in the same way, a drainage tube being left at its lower end. Iodoform and borated cotton were used as dressing. The operation lasted two hours. Ether was not well borne, and at one

* See Retrospect, June, 1884; also in same number other operations in the Intestines, especially paper by Parkes on "Gunshot Wounds of the Intestines."

time the breathing ceased and artificial respiration had to be resorted to. The patient did well after the operation, and in 24 days was able to eat a hearty Thanksgiving dinner. When shown to the Surgical Society three months after, was in excellent health.

Dr. Bull is to be congratulated on the able way he treated the case and the successful result. No doubt had the man been left without operation, he would have died as so many have done before, under the expectant treatment. The good result of this case will encourage others to follow in Dr. Bull's footsteps and actively interfere in gunshot wounds of the intestines, with the result, it is hoped, of saving many lives.

In the *Lancet* of February 7th, 1885, Mr. Albert Wright relates a case of perforating bullet wound of the abdomen which resulted fatally. It was the case of an inspector of police who was shot in the abdomen by a burglar, and who after being shot ran half a mile after the burglars, and then walked back two miles to the police station. He was seen by Mr. Wright two hours after the injury. At that time there was not much shock. The bullet had entered two inches below, and to the left of, the umbilicus. The wound was closed and morphia injected hypodermically. During the night all doubt as to the intestine being wounded was removed by the patient vomiting a large quantity of dark blood. The patient still being in good condition, nothing was done; later, fluid and flatus exuded from the wound, and the abdomen became tympanitic. A counter-opening was made below the wound and a drainage tube inserted. Patient kept getting worse; vomited at times; great tympanitic and abdominal pains, and finally died on the fifth day. At the autopsy a large wound was found in the descending colon, 18 inches from the rectum; the wound was plugged by a fragment of clothing, and there was a good deal of extravasation in the areolar tissue between the sacrum and the colon. The bullet was found imbedded in the centre of the sacrum.

*Capillary Puncture of the Urinary Bladder.*—Rosenberger advocates this mode of treatment wherever it seems desirable to submit the urethra to a rest-treatment in stricture, hæmorrhage,

prostatic affections, etc., etc. In the case of strictures, even those which are permeable improve much more rapidly when they are subjected to this mode of treatment. In one case a capilary tube was passed daily from the anus, and the bladder washed out through it without any reactionary fever being set up. Contrasted with the old operation, in which a large and powerful trocar was employed, its results are greatly superior, and the death-rate, especially among older people, much diminished.—*Centralblatt für Chir.*, p. 376, Nov., 1884; quoted in *Practitioner*, Dec., 1884.

This mode of treatment may be superior to the old one of using the trocar, but offers no special advantages over treatment by aspirator.

*Resection of Large Intestine.*—Mr. Sidney Jones, of St. Thomas' Hospital, lately resected the cæcum and part of the colon for scirrhous growth in a female patient, aged 54. The diseased part was completely excised and the ends of the intestines sewn together—ileum to colon. Patient lived three days. Cause of death, peritonitis. Operation performed under the spray.—*Lancet*, Jan. 10, 1885.

Mr. Walter Whitehead (*British Medical Journal*, Jan. 24, 1885,) reports a case of excision of the cæcum for epithelioma in a man aged 38. The lower two inches of ileum, all the cæcum and the greater portion of the ascending colon were removed. The cut ends of gut were brought out of the incision in right lumbar region, the tumour itself having been removed by means of a median incision. The patient did well for a time, but died on the fifteenth day of peritonitis. The operation was performed with strict antiseptic precautions, but without the spray. Mr. Whitehead thinks if the man had possessed a better constitution and had been more temperate in his habits, recovery might have ensued.

*Portable Antiseptics.*—Mr. T. E. Hayward advises as a portable antiseptic, corrosive sublimate. He says if 10 grains of corrosive sublimate, in the form of powder, be carried in the pocket wrapped round with gutta percha tissue to avoid deliquescence, a

solution can be readily obtained, as the powder will freely dissolve in water. By adding one of the powders to a pint of water a solution of 1 in 960 is obtained. He prefers this method to that advocated by Sir Joseph Lister, viz., the solution of the bichloride in glycerine.

*Repair of Tendons after Destruction.*—At a recent meeting of the Berlin Medical Society, Dr. Gluck reported on a patient whom he had shown to the Society in February, in whom the tendons of the extensor communis digitorum and the extensor indicis had been destroyed in consequence of a phlegmonous affection of the back of the hand. Dr. Gluck replaced the tendons by a plait of catgut fibres, extending from the metacarpo-phalangeral articulation to the transverse dorsal carpal ligament. The operation had succeeded perfectly, the functions of the missing tendons being now completely performed—ten months after. He also shewed another patient, aged 76, on whom he had performed the same operation, rather less extensively, but with equally good results. He believes that the catgut, instead of being absorbed, becomes organized. He has tried a similar experiment with divided nerves by stitching one extremity to each end of a decalcified bone, with the result that they have become united. This method has been recommended also by Dr. Vendoit, of Liège, and called by him "Nevrotization du tube osseux."—*Brit. Med. Jour.*, Jan 10, 1885.

*Iodoform Eruption.*—Dr. A. Neisser (*Deutsche Med. Woch.*, July, 1884) has observed seven or eight instances in which the external employment of iodoform has occasioned an erythematous affection, characterized by the formation of small vesicles and closely resembling acute eczema. In a few hours after the application a deep redness of the surfaces comes on, accompanied by violent burning and itching, then vesicles filled with clear fluid appeared, and soon formed crusts. This resulted, in some cases, from a single application. He defines the disease as an acute dermatitis, and likens it to mercurial eczema. Many patients are peculiarly susceptible, and the slightest trace of

iodoform in any application will cause this eruption to appear. (*Journal of Cut. & Ven. Dis.*, Feb. 1885.) I have seen this eruption several times following the application of iodoform to wounds, and at first it looks very like as if the wound was taking on an erysipelatous action. I well remember the consternation the appearance of this eruption caused me in the first case of amputation (of the leg) I dressed with iodoform. I felt sure, especially as the temperature was somewhat elevated, that erysipelas had set in. This was within 48 hours of the application at the time of the operation. The patient, however, kept getting better instead of worse, and soon the case was recognized as one of iodoform rash.

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# QUARTERLY RETROSPECT OF SURGERY.

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*Treatment of Acute Peritonitis by Abdominal Section.*—At a meeting of the Royal Medical and Chirurgical Society of London, held March 10th, 1885 (*Lancet*, March 14th, '85), Mr. Fred. Treves read a paper on the above subject. He remarked that the extreme fatality of acute diffused peritonitis, especially that form due to perforation, and the acknowledged futility of the modes of treatment that are at present employed, give some support to the proposal that acute peritoneal inflammation should be treated by the same methods that are successfully applied to other acute inflammations—viz., by free incision and drainage. He urged the adoption of this principle of treatment in acute peritonitis, and illustrated the success of this treatment by the report of a case in which the abdomen was opened and the cavity washed out with many quarts of carbolic solution and a drain introduced. The case was that of a woman aged 21, who was admitted into hospital suffering from chronic pelvic peritonitis following gonorrhœa. Three months after the commencement of the chronic peritonitis, an acute diffused peritoneal inflammation suddenly developed, due, as was afterwards discovered, to the bursting of an abscess and the extravasation of its contents into the general peritoneal cavity. After the operation, the

patient made a good recovery, and was in the garden on the 40th day.

At the same meeting, Mr. Howard Marsh read a paper on a case of "Acute Circumscribed Suppuration of the Peritoneum treated by abdominal section, with recovery." The patient was a medical student, aged 19, suffering from symptoms of sudden and acute peritoneal inflammation. The inflammation was localized, a swelling about eight inches square existing to the left of the umbilical region. An incision was decided upon, and gave vent to about two pints of fœtid pus. The abdomen was washed out thoroughly with a 1 to 60 solution of carbolic acid, and a large drainage-tube, eight inches long, introduced. This was gradually shortened, and the patient slowly recovered, the wound healing completely at the end of three months.

In the discussion which followed the reading of the papers, Mr. Thos. Bryant said he had long felt that the practice advocated by Mr. Treves was one that had not been sufficiently followed. He had, however, for ten years past, performed surgical operations on cases of localized suppuration in the peritoneum about the cæcum and pelvis; the cause of peritonitis, he thought, must determine whether the surgeons should operate or not.

Mr. Knowsley Thornton said there was a form of peritonitis which appeared to be due to the mere presence of the tumour and not to any perforation—an acute dry peritonitis. He had operated in two of these cases; one died and the other recovered after a very severe illness. In cases of perforation, he considered the proper course was to operate at once. Drainage was most important. He thought that, unless the surgeon could be certain of obtaining absolute asepsis, antiseptic irrigation should not be used. When asepsis was impossible, he should use large quantities of boiled water, with free drainage.

Drs. Douglas Powell and Goodhurst, and Messrs. Barwell and Meredith, agreed in commending the practice advocated by Mr. Treves.

The practice of opening the abdomen in cases of peritonitis due to perforation or wound in stomach and intestines is now advocated by all antiseptic surgeons, and this method of treat-

ment is one which has already saved many lives. The general feeling amongst surgeons is that, considering the great fatality of acute diffused peritonitis, abdominal section should be resorted to, and the effused fluid evacuated, as is done in pleurisy with effusion. No doubt cases of acute suppurative peritonitis, due to perforation or the bursting of abscesses into the peritoneal cavity, are more suited to this treatment, and the results are apt to be more favorable than in those cases of peritonitis called "idiopathic," or due to some unknown cause. Such a case I saw recently in the post-mortem room of the Montreal General Hospital, in a young girl aged 13. In this case no cause could be found for the peritonitis, and the pus was of such a tenacious character that had the abdomen been opened it would not have drained away, and many parts, as, for instance, the lesser sac of the peritoneum, would have been uninfluenced by the most careful drainage.

Milkulicz of Cracow (*Central. für Chirurgie*, No. 45) says laparotomy is urgently indicated in any case of perforation of the stomach or intestine, due either to direct or indirect violence or some pathological process. The main contra-indication to operation is extreme exhaustion. He relates four cases of laparotomy. The first case was one of perityphlitis, when he evacuated two pints of fœtid fluid; this patient died five days after operation. Another of volvulus, where one pint of darkish fluid was found and the obstruction removed. Patient made a good recovery from the operation, but died from pneumonia some weeks after. The third case is a very remarkable one. A young man was seized with intense pains in the umbilical region and presented symptoms of obstruction. Sixty hours after this he came under Prof. Milkulicz's care, and he diagnosed internal incarceration, and at once performed laparotomy. In the abdominal cavity he found a pint of thin fœtid pus and some undigested pieces of potato. He discovered also a perforation in the ileum on the left side, just above the brim of the pelvis. The mesenteric glands were enlarged, and Prof. Milkulicz came to the conclusion that it was a case of perforating ulcer from typhoid fever. He brought the edges of the perforated gut

together, after being freshened, by a dozen silk sutures. The subsequent course of the case was satisfactory. The fourth case was one of ruptured stomach. Death followed the operation in three hours.

Krönlein has also resorted to the operation of laparotomy for peritonitis due to perforation of the appendix vermiformis.

*Removal of Foreign Bodies from the Intestines.*—At a meeting of the Clinical Society of London, held May 8th, 1885, Mr. Charles Symonds reported a case of removal of a calculus from the vermiform appendix for the relief of recurrent typhlitis. At first the attacks of typhlitis occurred almost once a month, but the last five weeks he had had six attacks. Three days before admission into hospital he had a severe attack. On examination, a small hard lump was felt in the left groin, a little above Poupart's ligament. This lump, which was painful on pressure, gradually increased in size. It was decided to make an exploratory incision under the spray. This was done two inches above and one inch internal to the anterior superior spine of the ilium. The swelling was incised, the appendix opened, and a calculus removed. There was no pus or fæcal odour. The opening in the appendix was then stitched up and the abdominal wound closed. Some time after pus escaped from the wound, and a sinus was left for several months, but when last seen the sinus had closed, and patient was able to do his work.

Dr. G. E. Fenwick of Montreal reported a case in a young girl to the Canada Medical Association in August 18th, '84, in which he had successfully removed a large concretion from a Meckel's diverticulum. The presence of the concretion had given rise to an abscess, followed by a fæcal fistula. The abdomen was opened, the concretion removed, and the opening in the diverticulum stitched up. The girl made a slow but complete recovery.

*Bullet Wound of the Abdomen; Operation.*—Mr. Annandale of Edinburgh (*Lancet*, April 25th, 1885) reports a case of a young lad aged 15 years, who was shot by the accidental discharge of a revolver through the abdomen, half an inch below, and to the left of, the umbilicus. The boy gave evidence of but

little shock, and walked 100 yards after receiving the wound. He was admitted into the Infirmary and the bullet wound explored. It was found to penetrate the abdominal walls. The wound was enlarged and the intestines examined; five wounds were found in the small intestine, two in the descending colon, and two in the pelvic portion of the rectum. There was also a wound of one of the large mesenteric veins, which gave rise to considerable hemorrhage. The bullet could not be found. There was no extravasation of fæcal matter. The wounds in the intestines were sutured with catgut, and the whole cavity of the abdomen sponged out with bichloride solution (1 to 2000). The patient rallied from the operation, but died within 24 hours of the accident from exhaustion. At the necropsy, the intestines were much distended with gas, and the abdominal cavity contained six ounces of brick-red serum. None of the sutures had given way; in fact, they were all perfectly water-tight. The bullet was found on the right side of the pelvis, immediately in front of the ischial spine. Although this case proved fatal, why, it is not easy to say, Mr. Annandale feels encouraged to follow out the same practice should another case fall to his lot, as the condition of the wounded intestine after the sewing was in every way satisfactory.

Dr. M. E. Deschamps (*Revue de Chirurgie*, Nov. 1884) reports a case of *bullet wound of the stomach*, which did well for a week, when he left the hospital and went on a drinking bout, and died two days afterwards from peritonitis. The autopsy showed the course of the bullet was through left sixth costal cartilage, then through the diaphragmatic portion of the pericardium, then stomach, diaphragm again, and lower border of lung was traversed. The bullet was found between the 9th and 10th ribs. The wound in the stomach was closed, and at the autopsy showed no perforation. Dr. Deschamps thinks that the patient would have recovered had he not left the hospital and taken to drinking. The treatment consisted of ice to the stomach, opiates and very light diet.

*Surgery of the Stomach.*—Operations on the stomach are now of so common occurrence as to give rise to but little com-

ment when they occur. Still, the surgery of the stomach is only, as yet, in its infancy, and records of many cases will be required before exact rules can be formulated as to the proper procedure in the various diseases and accidents which call for surgical interference. In the *American Journal of the Medical Sciences* for April 1885, Dr. Winslow of Baltimore has collected nearly all the cases of pylorectomy and its substitutes—gastrectomy, gastrostomy, digital divulsion of pylorus, &c. He tabulates 61 excisions of pylorus, 13 gastro-enterostomies, 1 gastrectomy, 1 gastrostomy, 3 duodenostomies, and 6 cases of digital divulsion. The following is the summary given by Dr. Winslow :—

1. In cancer of the stomach not producing stenosis, give anodynes in quantities sufficient to relieve distress ; do not operate.

2. Pylorectomy for carcinoma is followed by 76 per cent. of mortality, hence it should only be exceptionally performed in those cases where, with marked stenosis, the pylorus is not adherent to the neighboring organs, and the patient is young and fairly strong.

3. In other cases of carcinomatous stenosis, as only very temporary benefit can be obtained, perform gastro-enterostomy.

4. In cicatricial stenosis, peform digital divulsion ; but if this is impossible, owing to great thickening of the walls, resection in those who are well-nourished and gastro-enterostomy in the debilitated will both be followed by good results.

5. In the opinion of the writer, hemorrhage or perforation from ulcer or other causes than stenosis does not present indications for pylorectomy.

6. Duodenostomy, gastrostomy for the passage of a tube, and complete gastrectomy should be replaced by gastro-enterostomy.

According to an editorial in the *Medical News* of April 11th, 1885, of the 56 operations performed on the pylorus up to the present time for carcinomatous stenosis, 75 per cent. were immediately fatal—that is, perished as the result of the operation ; in 72.72 per cent of the survivors, there was a return of the disease ; and in 27.27 per cent., there was freedom of recurrence for less than one year. Not a single patient was perma-

nently cured. In consequence of these results, the feeling that the operation is not justifiable is rapidly gaining ground.

Gastro-enterostomy has been performed 11 times, with three recoveries. One of the survivors died four weeks after, and the other two were alive after two and four months respectively. Gastrostomy and duodenostomy are not likely to be more successful. Hahn kept his patient alive two weeks by feeding through a tube passed into the duodenum. But the great mortality in all the above operations inclines the author of the editorial above quoted to believe that "such cases should be left to their fate, suffering being palliated by anodynes, and nourishment being afforded per rectum."

*In Fibrous Obstruction of the Pylorus*, several operations have been performed. Excision of the pylorus has been practiced in nine cases, of which five have recovered. Gastro-enterostomy has been done three times, with one death. (This operation consists in opening the stomach and also the upper part of the small intestine, and uniting these two artificial openings by sutures. It is performed when the pyloric tumor could not be removed.)

Duodenostomy and jejunostomy have also been performed. The first once and the second twice, but with a fatal issue in each case.

*Loreta's Operation, or Digital Divulsion of the Stomach.*—In the *Brit. Med. Journal* for Feb. 21st, 1885, Mr. T. Holmes gives an interesting summary of two papers by Prof. Loreta of Bologna on the operative dilatation of the orifices of the stomach. This operation, which is performed for simple and fibrous stricture of the pylorus and cardia, and for cicatricial contraction of the cardiac end of the œsophagus, is a substitute for pyloroctomy or gastrostomy. The operation is performed by making an incision two inches long on the anterior surface of the stomach near its pyloric end; the two index fingers are then introduced into the pylorus, which is then forcibly dilated. The chief difficulty of the operation is the great resistance offered by the pyloric sphincter. The first patient operated on in September, 1882, had suffered from dyspeptic symptoms for twenty years,

and had been treated for ulcer of the stomach for three or four years. When the operation was undertaken he was in the last stage of emaciation and exhaustion. Digital divulsion of the pylorus was entirely successful, and "five months after the operation the man was in perfect health and doing his ordinary work." The operation has now been performed eight times, with two deaths.

Dr. Russell (*Brit. Med. Jour.*, Feb. 21st, '82) reports a case of non-malignant constriction of the pylorus, with great dilatation of the stomach, where the use of a syphon-tube for washing out the stomach had succeeded in restoring his digestive powers, and for five years he had lived in comparative comfort, and was well when last seen. Before employing Loreta's operation, it would perhaps be as well to put in practice this treatment of washing out the stomach, as no danger is incurred, and the operation of divulsion could be performed later if needed. This treatment by irrigation is not a new one, but the patient's life in this case has been remarkably prolonged.

Dr. D. G. Zesas, in the last number of *Langenbeck's Archiv für Klinisch Chirurgie*, gives an exhaustive article on "*Gastrostomy and its Results*," in which he analyzes 162 recorded cases, and also gives an extended history of the operation. Of these 162 cases, 107 were in men and 33 women, the sex of the remaining 22 cases is not recorded. It was performed 129 times for carcinoma, 31 times for cicatricial contraction, and in 2 cases for syphilitic disease of the œsophagus. The results of the operations were as follows:—Of the 129 cases with carcinoma, 111 died and 18 recovered; of the 31 cases of cicatricial contraction, 20 died and 11 recovered; both the syphilitic cases died. The causes of death in order were: Exhaustion, pneumonia, peritonitis, and collapse. The great majority of fatal cases died within thirty hours of the operation. After discussing the line of incision, and speaking favorably of Fenger's incision (a finger's-breadth below and parallel to the edge of ribs on left side, crossing the rectus muscle), and the question of immediate or delayed opening of the stomach, he goes on to describe the various methods of suture used, and discusses the propriety of feeding

as soon as the stomach is opened or waiting for several days, and feeding per rectum. He advocates a small incision into the stomach sufficient to allow a soft catheter to pass, as then the part can be kept closed and remain clean, and there is little danger of infection. When a large incision is made, it is difficult to retain the contents of the stomach, the wound becomes unhealthy, and there is continual irritation in the neighborhood of the stricture.

The vomiting which follows the anæsthetic often gives a great deal of trouble after this operation, and continues sometimes for a couple of days, tearing through stitches and allowing contents of the stomach to escape. Dr. Zesas advocates the performance of gastrostomy by means of a local anæsthetic, as the pain of the operation is by no means great.

Since the introduction of antiseptic surgery the operation is much less fatal. Of 31 operations performed in the pre-antiseptic days, only one recovered; of 131 operations performed since the introduction of antiseptics, 38 recovered; and in time it is hoped the percentage of recoveries will be much increased.

The operation is indicated in all cases where there is great difficulty in swallowing, and where the œsophagus is becoming closed. This may occur (1) from congenital defect, (2) from cicatrices following wounds, the swallowing of caustic materials, and constitutional disease, (3) from new growth in the œsophagus itself or its neighborhood, and (4) from a firmly lodged foreign body. With regard to the advisability of performing the operation in cancerous disease, the author says: Gastrostomy is indicated in cancerous stricture of the œsophagus, and should be performed early, and when the patient has still sufficient strength to bear the operation. The establishment of a fistulous opening into the stomach is preferable to death by hunger, and certainly prolongs life. In cases of cicatricial contraction of the œsophagus, the operation is a most suitable one, and is much more successful than when performed for cancerous disease.

Prof. Billroth (*Allgemeine Wiener Med. Ze[illegible]g*, Feb. 24th, 1885) reports two cases in which œsophagostomy and gastros-

tomy were severally performed for the removal of a foreign body. In each case a set of artificial teeth were swallowed, and necessitated operation. Both cases recovered without a bad symptom.

*Toxic Enteritis caused by Corrosive Sublimate as a Surgical Dressing.*—Dr. G. L. Peabody (*New York Med. Jour.*, March 14th, 1885) gives an account of eleven cases taken from the records of the New York Hospital, in which the use of perchloride as an antiseptic dressing or application was followed by obstinate diarrhœa, which did not yield to the usual remedies, and which sometimes ceased on the use of the drug being discontinued. In seven of the cases, the application was followed by frequent bloody discharges, griping, tenesmus, prostration, and death. His attention was drawn to the subject by an article by Dr. Fraenkel in the February number of *Virchow's Archiv.* Dr. Fraenkel had been directed to the subject by a short article in the *Centralblatt f. Gynäkologie*, by Stadfelt of Copenhagen, in which a fatal case of poisoning was reported from washing out the uterus with a solution of 1 to 1500 of corrosive sublimate after retained placenta. In this case the autopsy showed numerous ulcers of an irregular or circular shape in the large intestine. The mucous membrane generally was much congested. Several of the autopsies made by Dr. Peabody occurred in surgical cases where the bichloride had been used for irrigating abscess cavities, irrigating wounds after amputation of the breast, &c., wiping the peritoneum after laparotomy with sponges wet in bichloride solution 1–2000. Fraenkel (quoted in *Lancet*, April 4th, 1885) says he has made autopsies of 14 cases treated by Schede with bichloride during the last two year and a half, in which toxic enteritis was produced by it. Of these 14 cases, two, he thinks, were killed by the poison directly. In the others, the drug did not seem wholly responsible for the fatal result. Salivation is exceptional in these cases. Inflammation is always present in the large intestine, but only exceptionally in the small. Schede (*Volkmann's Sammlung Klin. Vortrage*, No. 251) admits the dangers of bichloride in certain conditions, but thinks it doubtful whether the intestinal lesions may not be due to pyæmia; but both Fraenkel and Peabody say, in these cases

of supposed poisoning, the usual lesions of pyæmia were absent. W. Thorn, assistant to the Female Clinic at Halle, in the same number of *Volkmann's Sammlung*, makes an urgent plea for its total abolition from midwifery and gynæcology, alleging its inferiority to carbolic acid, and the dangers attending its use. From these papers it would seem that the immediate use of intra-uterine injections of bichloride is dangerous and perhaps unwarranted. Dr. Peabody says that as far as he can learn death has not resulted from its use in surgical dressings, but has occurred only after irrigation of abscess cavities, uteri, vaginæ, large wounded surfaces, and peritoneum. He thinks it not unlikely that many deaths have resulted from its use that have been ascribed to other causes.

I have, for the last eighteen months, used bichloride dressings and douches in my surgical practice in the Montreal General Hospital, and have never yet met with any untoward results from its employment. I very rarely wash out abscesses with any antiseptic unless they are fœtid, and do not make use of the continued douche in operations, but during the operations, only occasionally irrigate the wound and again at the termination of the operation. The evil consequences in general surgery, I fancy, are due to an excessive and unnecessary use of the bichloride. Still, it is well to be on one's guard, and the notes of warning sounded in the papers quoted above will prove of the utmost value in rendering surgeons more cautious and gynæcologists less prodigal in the use of corrosive sublimate as an antiseptic.

*Excision of Cerebral Tumors.*—At a meeting of the Royal Medical and Chirurgical Society of London, held on 12th May last, Dr. Hughes-Bennett read a paper on a case of cerebral tumor, the surgical treatment of which was managed by Mr. Rickman Godlee (*Lancet*, May 16th, 1885). The chief features of interest in the case were that during life the existence of a tumor in the brain was diagnosed, its situation localized, and its size and shape approximated entirely by signs and symptoms exhibited, without any manifestations of the growth on the external surface. This growth was removed by a surgical opera-

tion, without any immediate injurious results on the intelligence or general condition of the patient, who lived, relieved of his former symptoms, for four weeks, and who, at the expiration of that time, died, not from any special failure of the nerve-centres, but from the effects of a secondary surgical complication. Dr. Bennett said the case, however, taught important physiological lessons, and suggested practical reflections which might prove useful to future medicine and surgery. The history and condition of the patient on examination were detailed, and the reasons given for the diagnosis. The subsequent surgical operation, the progress of the case, and the post-mortem examination were also described.

In the discussion which followed the reading of the paper, Dr. Hughlings-Jackson, after congratulating Dr. Bennett and Mr. Godlee, said there was a kind of monoplegia, often passing into hemiplegia, which was almost certain evidence of cerebral tumor. A paralysis beginning very locally, for instance, in the thumb and finger, and spreading slowly week by week. In such a case he should not advise trephining, since there would be a great probability of a large tumor of the centrum ovale. The convulsive seizures of localizing value were not cases of epilepsy proper, but epileptiform seizures, convulsions beginning one-sidedly, and only locally in hand, cheek or foot. These seizures did not always to a certainty point to tumor, for in some cases there was local softening. When, however, there was also double optic neuritis, such gross disease as a tumor might be confidently predicted. We also require some local persisting paralysis of the part convulsed. So far then, Dr. Jackson remarked, three things were required for the diagnosis of cerebral tumor—local persisting paralysis, epileptiform convulsion, and double optic neuritis. He strongly advocated operation where the tumor could be localized, but said that we should not overlook three difficulties connected with operative interference—that the tumor might be very large, that there might be softening about it, and that, besides the tumor localized, there might be others. Cases were narrated illustrating these difficulties.

Dr. Ferrier had watched the case with the greatest interest,

and was present at the operation. The patient bore the operation without any great shock to the nervous system, and, he might say, without danger to life, for there could be no doubt that death was due to an inflammatory complication. The operation, if performed strictly antiseptically, need not be attended with any risk of encephalitis.

Dr. Macewen, of Glasgow, then enumerated some cases, of which I give an abstract below.

After Dr. Bennett's reply, and some remarks by Mr. Horsley, in which he said from his experience of experiments on animals he believed that a permanent closing of the wound at the end of the operation was the proper course, Mr. Godlee said, in regard to the operation, that he had employed the actual cautery partly to arrest hæmorrhage and also to destroy the tumor, the deeper parts of which were indefinite. In his opinion, the inflammatory action was the cause of the hernia cerebri; inflammation would probably not occur without some putrefaction having been set up. In removing the deep part of the tumour he had used a Volkmann's spoon, but some instrument larger and blunter would probably have answered better. Large wounds in man had not, in his experience, been well treated when the wound was completely closed, and he considered wounds in lower animals were not completely analagous to wounds in man, so that he agreed with Dr. Macewen that a drainage-tube should be used; otherwise there would be no opportunity for an extensive effusion of serum and blood to make its way out. As to the cause of the disaster in his case, he had no doubt that it was due to putrefaction, which was probably the result of imperfect purification of the scalp. At another time he should have the head shaved all over, and thoroughly washed first with soap and then with corrosive sublimate, and finally soaked in a strong solution of carbolic acid.

The interest in this case is rather medical than surgical. It was a triumph of medical diagnosis. Still there are many points in the case which are instructive surgically, and on which more light is needed. First, as to whether the wound should be closed permanently, as has been so successful in

monkeys, or treated by drainage; and secondly, as to the mode of dealing with the hæmorrhage from the parenchyma. Gummata are frequently very vascular, and their removal would necessarily cause hæmorrhage. In Mr. Godlee's operation the hæmorrhage was great, and was controlled by the actual cautery. In monkeys Mr. Horsley has successfully employed morphia, injected hypodermically, to lessen the hæmorrhage, and it is worth trying in man.

In the *Lancet* for May 16th and 23rd, Dr. Macewen, of Glasgow, has a paper on *Cases Illustrative of Cerebral Surgery*. The first case, that of a man aged 36, was admitted with impairment of power of the left arm, accompanied by muscular twitchings of right side of face and pricking sensations from the shoulder down to the fingers of left arm. He, some months before, had fallen down stairs and was unconscious for twelve hours. When he recovered consciousness, the only thing he complained of was giddiness. Gradually the symptoms for which he was admitted came on. There was no external mark of injury on his head. From the history, as well as from his condition at time of examination, a lesion of the motor cortex in upper half of right ascending frontal convolution was diagnosed, and, as the patient was very desirous that something might be done to alleviate his condition, operation was determined on. Under chloroform a portion of the right parietal bone was removed one inch behind the auriculo-bregmatic line, and one inch above a line drawn from the external angular process of the frontal to the upper angle of the lambdoidal suture, thus exposing the middle of the ascending frontal and parietal convolutions. A crucial incision was made into the dura mater, and a considerable quantity of clear fluid along with clots of blood about the size of a bean escaped; other clots adhering to the under-surface of the membrane were removed. No brain pulsation was seen, but a membrane-like patch involving the arachmoid and pia mater along with the external surface of grey matter was exposed. This was removed, and now the pulsations of the brain became distinct. The dura mater was replaced, and the disc of bone which had

been removed, and which had its periosteum entirely stripped off, was divided into several portions and reimplanted into the aperture in the skull, a small opening being left at the side for drainage. The scalp was brought together with chromic gut, and a decalcified chicken bone tube placed between the scalp and the skull for drainage. The operation was done under the spray and eucalyptus dressings applied. The first dressing was done after 48 hours, and the second three weeks later, when the wound was found healed. The man never had a bad symptom. At the end of six weeks he had improved greatly, there were no twitchings, and he felt his left arm as strong as ever; eight months after he reported himself as regularly at work, and with the power in his left arm perfectly restored.

The second case was a woman aged 26, who was admitted into hospital suffering from left-sided hemiplegia. She had a clear history of syphilis of four years' standing. Among the manifestations of the tertiary period was an ulcer over the occipital line, principally of the left side. There was a history of injury over the same part, to which patient attributed the ulcer. Eight months after the ulcer healed, she began to experience a tingling sensation in the muscles of the left arm, and subsequently in those of the left leg, accompanied by muscular twitchings. Soon she lost power in left arm, and later in left leg. On admission three months later, patient was found to have absolute motor paralysis of left arm and leg, accompanied by slight rigidity. The sensation in the affected limbs was unimpaired. Her intelligence was dull and her memory affected. Tapping the head gave rise to disagreeable feelings. The absence of anæsthesia from the beginning pointed to the lesion being cortical rather than central; and cortical lesion in right motor area, superior half of ascending frontal and parietal convolutions with probable involvement of paracentral lobule, was diagnosed. As treatment by counter-irritation and prolonged administration of anti-syphilitic remedies had failed to effect the slightest improvement, operative measures were advised. The operation was performed June, 1883. The hair having been partly shaven and the scalp thoroughly cleansed,

first with soap and water, then with turpentine, and finally with antiseptic solution, a disc of bone over an inch in diameter was elevated from the right side of the skull, its anterior border touching a point half an inch between the auriculo-bregmatic line, whilst its upper margin reached a point about an inch from the centre of the longitudinal sinus. The internal table of the osseous disc removed showed osteophytic deposits (some projecting 1-16th of an inch), the dura mater was thickened, and a plastic, membrane-like effusion was found over the anterior and posterior ascending convolution and bridging fissure of Rolando. The brain towards the paracentral lobe was resisting, and so was incised, which caused the escape of a gummous fluid with pultaceous particles. Previous to the removal of this matter there were no brain pulsations, but when it was removed they were seen to a slight degree. The interior of the skull was now explored with a probe, and osteophytic projections discovered in the occipital bone, to remove which a second trepanning was performed. As in the previous case, the osseous fragments were reimplanted and the case dressed with gauze, and drainage used. The patient did well, and when last seen, a year and ten months after the operation, the power of the left leg and arm was restored and she was able to walk about to perform household work.

Dr. Macewen has had seventeen cases under his care in which operations have been performed upon the skull and its contents for the relief of cerebral pressure or other brain lesion. In fourteen trephining was performed, and in three elevation of the bones. There were three deaths, but it was believed that trephining in no way hastened it. In eleven the bones which had been elevated were divided and reimplanted. Hernia cerebri has not followed as the result of any of these operations.

Dr. Macewen remarks that if inflammation in the brain exists at the time of the operation, hernia cerebri may form, notwithstanding the use of antiseptics.

Cerebral surgery is still in its infancy, and the cases of Dr. Macewen will help to give confidence as to the result of operative interference in cases which were formerly considered hopeless.

*Treatment of Cold Abscess.*—Prof. Verneuil (*Rev. de Thérapeutique*, Aug. 1884) obtains a rapid cure in almost all his cases of cold abscess, abscess from diseased bone or from congestion, &c., by ethereal injections of iodoform of the strength of one in twenty. The abscess is first aspirated by means of Potain's aspirator, and then receives from 100 to 300 grammes (3 ozs. to 9 ozs.) of the iodoform solution. By not exceeding this quantity (3i to 3iii of iodoform), no fear of accidents need be felt. The liquid penetrates into all the anfractuosities and diverticulæ of the abscess, the ether becoming absorbed or evaporated, and the antiseptic agent being deposited uniformly on the pyogenic membrane, the action of which it modifies. This simple means, so exempt from danger, and so easy of application, has proved highly successful, very large abscesses having yielded to three or four injections.—(*Quoted in London Practitioner for March.*)

*Management of Abscess in Hip Disease.*—Dr. A. B. Judson (*New York Med. Jour.*, Jan. 1885) says a comparison of these cases of osteitis of the hip which are free from purulent discharges and those in which such discharges occur, brings to light several circumstances which take away the dread of abscesses. Their occurrence, according to Dr. Judson, shortens the duration of the disease. The degree of deformity depends in no way on the presence or absence of purulent discharges. There is no evidence that the discharges, as such, exhaust the strength of the patient. The precept that pus should be released by an early and free incision is a rule which is not always to be followed in the management of hip disease. If the collection of pus were the starting point or the main feature of the disease, an early and free incision would be admissible; but in hip disease, the trouble is primarily and chiefly a disease of the bony tissue composing a joint, which is generally best treated by the administration of tonics and the regulation of the hygiene, and, locally, by fixation and protection from violence. If abscesses occur, it is shown by experience that the retention of pus, even in large quantities, or the presence of a purulent discharge, does not prevent the process of repair. The author has seen no case in which an incision for the release of pus has had a controlling

influence for good, generally or locally. Except when tension or pain form decided indications for relief by incision, an expectant treatment is preferable.—(*Quoted in Annals of Surgery*, May 1885.)

*Exsection of Fascia in Dupuytren's Contraction.*—Dr. R. Gersung (*Wiener Med. Woch.*, Aug. 1884) makes a longitudinal incision of the integument over the prominent aponeurotic bands, and then, through the opening caused by the retraction of the skin, excises this part of the palmar fascia. The wound is closed by sutures and dressed antiseptically. The advantages of this method, he claims, are that there are no thickened and knotty cords left in the aponeurosis, and, further, that owing to the direction of the line of incision in the skin there is but little retraction of the tissues, and the wound heals readily.—(*Quoted in Practitioner*, March, 1885.)

Mr. Reeves (*Brit. Med. Jour.*, March 7th, 1885) also advocates this method of treatment, and reports a successful case in a woman aged 45, with contraction of ring finger of right hand.

*Treatment of Ringworm of the Scalp.*—Dr. James Forbes of Edinburgh (*Brit. Med. Jour.*, March 14th, 1885) advises the following treatment for ringworm of the scalp:—After having cut the hair around the spots, spirits of turpentine is freely poured over one or more spots at a time, the fingers being used to rub in the turpentine; this gets rid of the dirt and grease, and the short stubbly hairs appear. As soon as the child feels the turpentine "nipping," it is washed off with carbolic soap and warm water to make a lather, then the lather is washed off, and the head, which is now beautifully clean, dried. Two or three coats of common tincture of iodine are now painted well over the affected parts and allowed to dry, and carbolic oil is rubbed through the hair. This treatment applied night and morning generally cures the worst cases in the course of a week.

*Cocaine in Surgery.*—Dr. Morse of San Francisco (*Pacific Med. & Surg. Jour.*, May, 1885) reports a case of ligature of the common carotid artery prior to removal of a growth from the pharynx. Fearing the use of anæsthetics, he injected over the site of ligature three-quarters of a grain of cocaine and a quarter

grain of morphia. The artery was ligated, then, beneath the omohyoid, without the patient feeling any pain.

*New Operation for Naso-Pharyngeal or Fibrous Polypus.*—Mr. Furneaux Jordan (*Brit. Med. Jour.*, May 2nd, 1885) advises that a triangular flap should be taken out of the upper lip and side of the nose. A curved bistoury is carried under the lip into the affected nostril, and made to cut its way out. Then the soft part of the nose is divided on one side of the middle line, in a line with the cut in the lip. A few touches of the knife permit the flap to be turned well outwards. The nasal cavity is found, expanded, well defined, and open to any sort of manipulation. To-and-fro traction by one or two fingers in the pharynx and one or two at the front, aided by snips from the scissors or knife, readily detach the tumor, which falls into the hand in the mouth. Delicate adjustment and stitches leave scars so fine that only careful search can find them.

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# QUARTERLY RETROSPECT OF SURGERY

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*Treatment of Urethral Stricture.*—Dr. Wm. M. Stoker lately read a paper before the Surgical section of the Academy of Medicine of Ireland on the "*Treatment of Urethral Stricture by Internal Urethrotomy.*" (*Dublin Journal of Med. Science*, June, 1885.) After discussing the reasons for abandoning the treatment of stricture by Holt's method or "divulsion," he went on to say that if a stricture be tolerably recent, and if time and circumstances will permit, gradual dilatation may be tried, and will for a limited period be successful. Cases are met, however, where frequent catheterization will not be borne, or the circumstances of the patient demand speedy relief; in such cases the surgeon need have no hesitation in recommending division of the contracted portion without delay. He would go even further; he would not hesitate to divide any stricture, however recent, provided it were confirmed, and either unsuited to the gradual dilatation or disposed to recontract after it, and that the kidneys were healthy. In cases of old stricture, he would always divide internally, except in cases with old standing perineal fistulæ. In these latter cases, he said, nothing short of an external operation is likely to succeed. If the perineal fistula is recent and solitary, internal urethrotomy should be tried as a primary measure.

Dr. Stoker, in performing internal urethrotomy, prefers cutting from before backwards, the method of Maissonneuve, and he stated that he had performed the operation 25 times without a death. In one case only did troublesome hæmorrhage occur. In but one case had there been any return, and some had been operated on ten years ago. Dr. Stoker prefers incising the upper wall of the urethra, because less hæmorrhage follows this incision. If hæmorrhage should occur, then he ties in a large catheter. After the operation, a large catheter should be passed and immediately withdrawn; then every other day, for a month, a No. 12 to 14 should be passed, and after that once a week for the rest of the patient's life. The following are his conclusions:

1. Internal urethrotomy is superior to any form of dilatation.
2. Maissonneuve's method is much better than that of Civiale and his followers.
3. Certain details should be followed out, as (*a*) completeness of division, (*b*) disuse of anæsthetics, (*c*) incision of upper wall of urethra, and (*d*) non-retention of catheter in the urethra subsequent to operation.

To this latter procedure Dr. Stoker attributes the freedom of his cases from inflammation and other troubles.

In a paper by Mr. Reginald Harrison in the *British Medical Journal* of July 18th, 1885, on the "*Treatment of Urethral Stricture by combining Internal and External Urethrotomy*," he says he differs materially from many surgeons of large experience as to the advisability of the operation of internal urethrotomy in the majority of cases. He thinks that a person with stricture had much better employ dilatation in some form or other, so long as he can keep himself comfortable and the size of the urethra is not progressively diminishing. Internal urethrotomy, Mr. Harrison holds, is extremely liable to be followed by a form of fever which is exceptional, unexplainable, and occasionally fatal. It is not the ordinary wound fever of operations; it is generally ushered in with a rigor, and, in its course, presents every degree of mildness and severity. It is occasionally attended with suppression of urine, and it sometimes proves fatal in cases which seem well adapted to operation, and

after death no satisfactory explanation as to its cause or pathology can be offered. He holds, also, that internal urethrotomy does not furnish better permanent results than other methods of treatment, besides, after the most successful performance of the operation, the patient is obliged to pass an instrument at intervals for the remainder of his life, which indicates that only a partial good at the best is to be hoped for from the operation. On theoretical grounds, Mr. Harrison thinks the operation has much to recommend it, and on carefully considering the whole subject, it seemed that, if it were possible to assimilate the performance of internal urethrotomy with some other operations on the urinary apparatus, where there was absence of any special form of fever or septic intoxication following them, and where the wounds inflicted did not deal with scar tissue, which subsequently manifested an inordinate disposition to contract, the more prominent objections connected with internal urethrotomy might be mitigated, if not entirely removed. He attributes the rigors, fever and other symptoms following urethrotomy to the passage of urine over the cut surface, and quotes Prof. Berkeley Hill, who says that in the cases of internal urethrotomy performed by him, where the catheter was afterwards left in to lead off the urine there were no rigors or fever, but in those cases where a catheter did not lead off the urine, the temperature remained normal for as many hours as the patient refrained from micturition. He also mentions that Prof. Bouchard has drawn attention to the poisonous effects of normal urine when injected into the blood, even in small quantities.

Mr. Harrison, in certain cases which would not yield to dilatation, has performed a double operation—first internal urethrotomy and afterwards a perineal section, and introduction through this into the bladder of a drainage tube. The urethra is opened from outside, of course behind the stricture, and in the membranous portion. Thus the urine is voided through the tube, and the wound made in the stricture by the urethrotome protected against urine passing over it. He has operated in this way twelve times, and after this double operation there has never been a rigor or any fever. The urethra has been placed

at rest, the process of repair has been facilitated, and the urethra has healed up, or, to use his own words, "a cicatricial splice has been formed and completed without contact with urine or other possible source of irritation."

The perineal operation is performed as follows: Patient being placed in the lithotomy position, and a grooved staff introduced, the membranous urethra is punctured with a long, straight finger knife one inch in front of the anus, the back of the knife being towards the rectum, the incision is slightly enlarged forwards so as to permit the introduction of the index finger. If the staff be found exposed at the bottom of the wound, all is well and good; but if not, along the finger, reintroduced to the bottom of the wound, is passed a blunt, though pointed knife, with which the few remaining fibres that remain between the tip of the finger and the groove are cut away. When the groove of the staff is felt, Wheelhouse's small probe-pointed gorget is slid along it, the staff is withdrawn, and the drainage-tube passed along the concavity of the gorget into its position. The drainage tubes are of gum-elastic, four or five inches in length, and somewhat thinner than an ordinary index finger. The tube should be just within the bladder and no more. They are secured by an eye on each side, through which a tape can be passed.

Mr. Harrison believes that he, by this double operation, not only avoids urinary fever, but that the cicatricial slice formed in the urethral stricture has not so much tendency to contract as the scar tissue would when the surface is being continually irritated and exposed to septic influences. To facilitate this he washes out the urethra with an antiseptic solution, and occasionally introduces a small drainage-tube into the meatus and out of perineal wound, and keeps this aseptic by washing out with some antiseptic injection. He says this operation is not applicable to penile strictures or those behind the scrotum, and is suituble only to those cases of bulbous stricture which do not yield to dilatation.

The proper method of treating organic strictures of the urethra has been for years a much-vexed question. Each writer recommends a certain form of treatment as the only sure way of

getting good results. Some advocate gradual dilatation; others internal urethrotomy not only in cases of old standing relapsing strictures, but in *every* case of stricture, even those which are only detected by means of a No. 25–30 sound. Some surgeons, even yet, in bad cases invariably perform external urethrotomy, and extol the wonderful benefits of this operation; a few still recommend divulsion, and some the combined operation of urethrotomy and divulsion. Again, internal urethrotomy itself is performed in various ways, and each way has its ardent supporters, who condemn every other method. Some cut from behind forwards, others from before backwards; some incise the upper wall of the urethra, and others the lower; some make a number of cuts, others only one; some leave the catheter in after the operation, whilst others attribute their success to leaving it out. The instruments are of endless variety, vying even with those used by the gynæcologist for treating the os uteri. One man invents an instrument, another modifies it, and this is again modified, and so on *ad infinitum*. The probability is that the good result obtained depends more upon the operator than the method of operating and the kind of instrument used. The old treatment of stricture by cauterization with the solid stick of nitrate of silver is still advocated by some surgeons.

Sir Henry Thompson, who, perhaps, has had more experience than any living surgeon in the treatment of stricture, said in his lectures, delivered last year before the Royal College of Surgeons, that at first it was only in the worst cases that he resorted to internal urethrotomy, but that now he has been practising it with continually greater freedom. He had performed (at the time of the lectures) internal urethrotomy on between three and four hundred patients, with a mortality of less than 3 per cent. He only performs the operation in those cases where the stricture shows a tendency to recontract, or which are intolerant of bougies. In performing the operation, Thompson uses Civiale's method, cutting from behind forwards and in the floor of the urethra. Before performing this operation, it is necessary that the urethra should be dilated to the size of a No. 5 bougie; if the stricture be tight, then a small bougie is introduced and tied

in for two to four days, and when it is withdrawn, the stricture is dilated sufficiently for the passage of the urethrotome. Immediately after division a large sound is passed, and if there is any difficulty, the urethra is again incised. A gum-elastic catheter is now tied in for at least 24 hours. In cases where the stricture returns after urethrotomy, Sir Henry Thompson repeats the operation. This he finds necessary in the majority of cases. In a very few only is the relief permanent.

Last year, at the meeting of the British Medical Association (*Brit. Med. Journal*, 1884), Mr. Walter Coulson read a paper on *Internal Urethrotomy*. After describing the various methods practised by different surgeons, he stated his preference for the operation, cutting the roof of the urethra from before backwards, and the instrument recommended is Teevan's modification of Maissoneuve's. After the cutting is over, a full-sized silver catheter is introducted, the bladder emptied, and the instrument immediately withdrawn. Then the patient must remain in bed, with hot bottles to the feet, and take three grains of quinine in half an ounce of brandy. If no rigors occur, the patient has a hot bath at night, and 48 hours after a large-sized bougie is introduced and the patient allowed to get up; afterwards a bougie is passed every three or four days for a fortnight, when the patient is instructed to pass one for himself once every week. As to the results—out of 206 operations performed at St. Peter's Hospital, 10 terminated fatally. In many cases no anæsthetic is used, and the cure is permanent and radical in the cases that recover.

In my experience, the cases that cannot be treated successfully by gradual dilatation are few indeed, and I have rarely, except in penile strictures, which do not dilate easily, found it necessary to perform either external or internal urethrotomy. If the same treatment recommended after internal urethrotomy (that is, regular passage of bougies or sounds) be carried out faithfully, I think quite as few strictures will be found to recontract after *gradual* dilatation as after internal urethrotomy. Of course dilatation takes time, which cannot always be afforded, and tests the patience of both the surgeon and the sufferer, but

it is infinitely safer than any other method of treatment. It seems to me that a mortality of 5 per cent. is too large a one to undertake the operation hastily and without due consideration. Even an experienced operator like Thompson has a mortality of 3 per cent. Certainly in some cases, such as old indurated multiple strictures, resilient strictures, and where the passage of a bougie is followed by rigors and great elevations of temperature, internal urethrotomy is indicated, and in others, where there is much induration and many perineal fistulæ, external urethrotomy is advisable, but these cases are not very common, and many of these can be successfully treated by gradual dilatation.

The fever following catheterization is often controlled by full doses of quinine (10 grs.) or 10 grs. of Dover's powder and confinement to bed for a day. I have only seen one death following dilatation, and that was recently in an old case of stricture with advanced disease of the kidneys. That the passage of urine over the cut or torn surface of the urethra always explains the occurrence of urethral fever I can hardly believe; if so, why is it that in some cases of stricture a catheter cannot be passed without the occurrence of rigor and fever, whereas if a large dose of quinine or 10 grains of Dover's powder be given in the same cases these untoward symptoms do not appear. I have seen several such cases. The fact that opinion is divided as to tying in a catheter after the operation shows that the cause of urethral fever is not yet understood. Mr. Harrison's double operation no doubt offers certain advantages, but I fear it will never be more popular than preliminary tracheotomies in operations on the mouth. It will be hard to persuade surgeons that a double operation does not increase the risk.

In America especially has the treatment of internal urethrotomy been carried to excess; not only is it performed for every case of real and supposed stricture, but even for gleet. Only the successes are published; the failures and fatalities are little heard of. The reason gradual dilatation is not popular is (first) that it is tedious, and that the immediate results are not so brilliant as urethrotomy, and (secondly) that the fashion has changed. I am sure, if a surgeon had to treat himself for an ordinary

stricture, he would much prefer gradual dilatation to the cutting operation.

Dr. Robson (*Brit. Med. Journal*, March 7th, 1885) reports a case of traumatic stricture treated successfully by excision. He recommends this operation in all forms of relapsing strictures and those which do not readily yield to treatment, especially if situated anterior to a point half an inch in front of the membranous urethra. After the excision, a catheter is tied in, and the cut surfaces of the urethra sewed over it. Six months after the operation, a No. 13 sound passed easily.

Mr. Swinford Edwards, F.R.C.S., in the *Brit. Med. Jour.* of July 11th, 1885, publishes a lecture on "*Bougies, their Use and Abuse*," in which, after describing the various kinds of bougies and the method of using them, says he is no friend to the treatment of stricture by continuous dilatation, for he believes it to be more fraught with danger to the patient than internal urethrotomy. He, however, gives no reasons for this statement. He also says that he does not hold with the practice of tying in a catheter after the operation of internal urethrotomy, as he is of opinion that the irritating presence of an instrument in the urethra will almost certainly set up inflammation of the urethra and bladder, and that we may congratulate ourselves if our patient escape urethral fever leading to suppression of urine and death. Perineal abscess, extravasation of urine, and orchitis, are other local complications. Any, or all of these, may succeed the passage of a bougie, "but," says the author, "they are certainly more likely to occur in treatment of stricture by continuous dilatation."

I confess that I am somewhat surprised at these opinions of Mr. Edwards, which are at variance with the experience of most surgeons. Sweeping statements such as these, unsupported by facts, do harm, and only tend to show the marked bias of the author in the direction of his own private method of treatment by urethrotomy.

*Operative Treatment of Enlarged Prostate.*—Prof. E. Bottini, by an operation entirely original, has succeeded in permanently relieving ischuria due to prostatic enlargement. The

operation was performed in July last, and the permanence of the results gives promise of a noteworthy addition to the surgical treatment of prostatic disease, which heretofore has been considered as almost entirely tentative. The patient was a man aged 68, and for the last five years had difficulty of micturition. This increasing, and the patient losing strength, Dr. Bottini proposed cauterization. Previous to the operation, the bladder was treated with solutions of boracic acid and sulpho-carbolate of zinc, and the attempt was made to strengthen the contractility of the bladder by cold injections. After a few weeks, the conditions becoming more favorable, the patient was chloroformed and the galvano-cautery introduced into the urethra with the cauterizing blade against the enlarged prostate. The instrument was so constructed that all parts, save that by which heating was necessary, were kept cool by a current of ice water. Cauterization of the prostate was continued 45 seconds, which then being deemed sufficient from the inclination of the instrument, the current was broken. On the withdrawal of the instrument, all parts were found to be cold. The patient was put to bed and a catheter left in the urethra. Four days after the operation the patient was without fever; the bladder was washed twice a day with a 2 per cent. solution of sulpho-carbolate of zinc. On the seventh day, small portions of escharotic tissue began to escape with the urine. The first spontaneous discharge of urine occurred about three weeks after the operation, and in three months urination was entirely natural. Eight months after the operation improvement still continued, and the general health of the patient was excellent.—(*Gazetta degli Ospitali*, Feb., 1885, quoted in *Amer. Journal of the Med. Sciences*, July, '85.) This operation was fully described and the instruments figured by Dr. Bottini in 1877 in Langenbeck's *Archiv f. Klin. Chir.*, Bd. XXI, Hft. 1, and a condensed translation of the article was published in this JOURNAL in August, 1877 (Vol. VI, p. 83.)

Mercier's operation of removing a portion of the obstructing prostate is being practised now by some surgeons. Dr. Gouley of New York has an instrument with which he punches out a piece of the gland. Mr. S. Edwards (*Lancet*, July 11th, '85)

reports a case in which he successfully performed prostatectomy with Gouley's instrument, to the great relief of the patient. There was little bleeding and no bad symptoms afterwards, the patient leaving hospital in a week.

Mr. Harrison's operation, which has been highly spoken of, is performed by opening the membranous portion of the urethra and removing the obstruction partly with a probe-pointed knife and partly by divulsion with the fingers. A large tube is then introduced into the bladder, and through this a smaller one to carry the urine. A stop-cock arrangement has been also used, to enable the patient to go about.

At the meeting of the American Medical Association, held in New Orleans in April last, Dr. J. W. S. Gouley of New York read a paper on "*Some points in the Surgery of the Hypertrophied Prostate*" (*Medical News*, May 2nd, '85). After describing the symptoms and diagnosis of this disease, he said the surgical treatment was divided into two parts—1st, Mechanical means of relief; and 2nd, The removal of the organ by surgical means. All hard catheters should be discarded, except in cases of false routes. A soft catheter should have as small and as smooth an eye as possible—never two eyes. Small catheters are usually preferred, but too small an instrument should never be used. Where false passages exist, a large catheter should be employed, and where this fails, the invaginated catheter of Mercier is usually successful. . . . . Evacuatory catheterization should be commenced early in the history of each case, but in old cases, where the bladder has become distended, it is of the greatest importance that all the urine be not removed at one time. The catheter should be used as often as from twice to five or six times daily. If the catheter be too freely used, many of the alarming symptoms are relieved and patient seems much better than before, but at the end of a few days the patient begins to show symptoms of disease of the kidneys, which proves fatal in a month or six weeks. When there is intolerance of the catheter, he advocated the withdrawal of a small part of the residual urine at intervals of once every few days, until tolerance was established. He laid great stress

on the injection of medicated fluids into the bladder in a quantity to correspond to the amount of urine removed. A solution of borax was most employed, but various other agents might be used, as when the urine was strongly alkaline, an acid might be added; when large accumulations of mucus and pus were present, alkalies were indicated; and when phosphates were deposited, weak solutions of acetate of potash were recommended. The use of carbolic acid he did not endorse, but considered the nitrate of silver, in properly diluted solution, one of the most valuable agents we possess. Morphia, hyoscyamus or cocaine may be added in cases of great vesical irritability. In certain cases, especially when the central lobe was enlarged, he advocated removal of the obstructing portion.

In the discussion which followed, Dr. Gouley claimed priority for the operation of excision of the prostate.

*Massage of the Prostate for Retention.*—Dr. Le Rütter, a Dutch surgeon, has found means to subject the prostate to a kind of massage, and in this way has completely cured two patients of the ages of "over 50" and 70 respectively. The method employed is to pass the forefinger up the rectum, and then move the prostate to the right, left, and in a vertical direction three times each way, rubbing it firmly afterwards. This proceeding is, as may be supposed, rather disagreeable to the patient (to say nothing of the operator's sensations), and it cannot be borne for a long time. In one of the cases 20 massages, and in the other 15, were required to effect complete restoration to pass urine freely. In both a small amount of bleeeding took place from the urethra, caused by the manipulations of the prostate, for which liquor ferri sesqui-chloridi was given with satisfactory result.—(*Brit. Med. Journal*, Aug. 1st, 1885.)

*Compression in Acute Orchitis, both simple and complicated.*—This is effected by making gradual traction on the inflamed testicle, thereby separating it, as much as possible, from the external abdominal ring, towards which the cremaster has a tendency to pull it. Having then isolated the organ, several turns of bandage are made around it above, preventing its reascent. From this *point d'appui*, the whole testicle is covered by oblique

circles of the compressing bandages, which is afterwards covered by a starched spica-bandage. Mr. Thiry, of the Hôpital St. Pierre, has long been in the habit of treating cases by this means. The author asserts that he has not seen this method fail in a single instance, however acute the inflammation. The effect of compression is at once to give relief to pain. Several cases are recorded in which the cure was complete, on an average, in eight days. The application may have to be repeated daily, according to the rate of diminution of the swelling. Three applications, as a rule, were sufficient.—(*La Presse Médicale Belge;* quoted in *Annals of Surgery*, July 1885.)

This modification of an old method of treatment is not likely to be practised extensively. It is difficult of application, requires time, and, besides, offers no advantages over the ordinary methods, such as applications of ice, hot poultices, or scarification. In cases where there is much pain, I have found no treatment so beneficial as making incisions into the scrotum and applying a hot poultice. Puncture, when there is much distension of the tunica albuginea, is often marvellously effective, but in private practice it is difficult to get the patient to submit to it.

*Radical Cure of Varicocele.*—In the *Lancet*, April, 1885, Mr. Henry Lee describes the operation which he has been in the habit of performing for the radical cure of varicocele. The patient is placed under ether, and on the left side of the bed. A portion of the skin of the scrotum is then pulled up and removed by scissors or a knife, the largest diameter of the wound being transverse. The enlarged veins are easily distinguished from the vas deferens, and any large artery must be separated before the operation is continued. A harelip needle is then introduced through the wound under some of the veins, and another needle passed half an inch distance under the same veins in the same way, and a figure of 8 ligature is put round the needles and over the veins. The veins between the needles are then divided, and a cautery applied to their divided ends and allowed to remain in contact with them for a quarter or half a minute. The tissues adhere firmly to the cautery, if not too hot, and are gently separated by the handle of a scalpel. The

needles placed under the veins are now removed, and the edges of the wound brought together by short harelip pins or by a continuous carbolized catgut suture. The wound generally heals in great part by first intention, and the patient can walk about in a week. In some cases where the scrotum is not relaxed, the subcutaneous division of veins answers very well without removal of any skin.—(*London Medical Record*, June 1885.)

*Worsted Truss for Infantile Inguinal Hernia.*—Mr. Edward Lund refers, in the *Brit. Med. Journal* for June, 1885, to the worsted truss described by Mr. Coates in 1849, and strongly advises its use. A skein of Berlin wool is looped across the abdomen; one end of the loop is placed directly over the outer abdominal ring, the hernia being reduced previously. The folded worsted is passed horizontally across the abdomen, above the line of the crest of the os pubis, to the opposite side, round the hip, behind the pelvis, and over the hip of the side of the hernia. The folded end is then passed through the loop of the skein, and will here form a knot or bulged portion, which must be carefully adjusted so as to lie against the hernial opening, and, being carried down the upper part of the thigh, between it and the scrotum (if a male), it is brought round the external side of the thigh near to the top of the great trochanter, and there tied or fixed with a safety-pin to the band of worsted already round the pelvis. There is an advantage in the fact that the child can be bathed with the truss on, and a fresh one then be applied, the first being dried and cleaned for future use.—(*London Medical Record*, July, 1885.)

*Treatment by Section of Hydrocele by the Antiseptic Method.*—In discussing the treatment of hydrocele by the above method, Mr. Edward Bellamy says (*Lancet*, July 4th, 1885): "The few remarks I make are based on a considerable number of cases I have treated both in hospital and in private practice, in the early and later stages of hydrocele, by which latter I mean those which have been repeatedly tapped and in most instances injected. It is hardly necessary to take up space by instancing individual cases. It is certainly time that the old-fashioned method and the supposed radical cure by continuous injection

was done away with, as painful, dilatory, and generally useless. I claim no originality whatever in this treatment. I desire to call the attention of practitioners to the fact that they should invariably adopt the method of free incision with strict antiseptic precautions, and I cannot understand why it is not more universally carried out. Every surgeon knows of the method, but, as far as I can see, contents himself with adhering to the usual proceedings. There is no danger in it. An unæsthetic may be given if necessary. The healing is rapid; the cure almost certain, if not absolutely so. The operation is as follows: The diagnosis, of course, being established, the scrotum should be shaved, and (if the surgeon thinks necessary) the spray used; the tumor is firmly grasped so as to render the parts as tense as possible. A clean sweep through all the scrotal tissues is then made with a bistoury from the cord to the base, and the fluid escapes. Every bleeding vessel, however small, must be twisted or tied most scrupulously, and the interior of the sac carefully examined for any vessel which may have been wounded or given away. The cavity should then be stuffed, not too tensely, with either lint soaked in 1 to 40 carbolic oil or gauze, and the upper part of the edges of the wound stitched together, including all tissues. A small tag of the contents being left out of the most dependent part in the contingency of drainage, a pad of salicylic wool is placed over all, and the scrotum supported by a cushion between the thighs. In a couple of hours the parts may be dressed and the contents of the sac withdrawn. As a rule, considerable contraction of the walls of the sac will have set in, but it is advisable still to introduce the antiseptic material so long as any appreciable cavity exists, and this is generally for about a week in very favorable cases, when it will be found impossible to pass anything into it, and merely the lips of the original wound are left to close. Tubal drainage is, I venture to think, unnecessary. I have not yet met with any untoward constitutional symptoms by adopting this method, which is equally applicable to encysted hydrocele of the cord."

*Hydrocele cured by Elastic Pressure.*—In the *Meditz Obozreine*, No. 21, 1884, p. 808, Dr. P. G. Rosanoff of Zvenigorod

records a case of chronic hydrocele in which complete cure ensued after wearing a well-fitted elastic bag for about six weeks. An examination of the patient 15 months later showed that he was still entirely free from the former disease.—(*Lond. Med. Record*, Feb. 1885.)

*Treatment of Gonorrhœa by a New Drug.*—The new drug here referred to (*Lancet*, Feb. 28th, 1885) is Jacaranda lancifoliata—a plant indigenous in Colombia, South America, and used by the natives for venereal diseases. This drug in Mr. Wright's hands has proved most efficacious in diminishing pain and stopping discharge in acute cases; while it has been successful in several cases of gleet which had resisted previous treatment. A liquid extract is made from the leaf, and may be given in doses of 20 to 30 minims three or four times daily.—(*London Med. Record*, June, '85.)

*Hebra's Treatment of Soft Chancre by Salicylic Acid.*—After washing the penis with lukewarm water and soap, and drying it well, the powdered acid is applied to the sore and its edges, and maintained in place by pledgets of cotton wool. The application is renewed after 24 hours, and on the third day simple ointment is substituted for the acid. Twelve hours later this eschar disappears, and after about three days the sore is healed.—(*Lond. Med. Record*, June, 1885.)

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# QUARTERLY RETROSPECT OF SURGERY.

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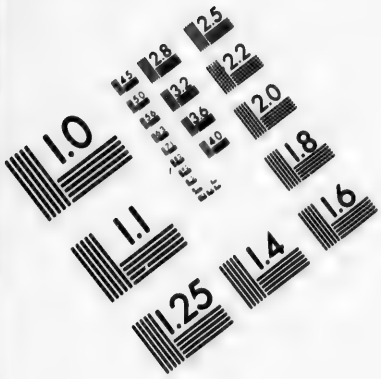
*Surgery of the Intestines.*—Although I have, in several of my recent Retrospects, devoted considerable space to the surgery of the intestines, yet I feel compelled, by the immense quantity of new information which is constantly presenting itself in this comparatively new department of surgery, to again treat of it at some length. We are still in the dark on many points, and much work is yet necessary before the surgeon can determine the best mode of treatment in the many accidents, diseases and injuries to which the intestines are subject.

*Laparotomy in Cases of Perforative Peritonitis.*—Prof. M. Oberst of Halle, in a paper on a case of perforative peritonitis treated by laparotomy (*Centralblatt für Chirurg.*, No. 20, '85), states, with regard to the operative treatment of acute septic peritonitis, that a favorable result from incision, antiseptic drainage, and cleansing can be expected only in cases in which either the infective focus has been localized through adhesive inflammation and a more or less circumscribed abscess has been formed, or, when with diffuse peritonitis operative treatment has been applied early, and before the formation of extensive adhesions between the various coils of intestines. In most cases, however, of acute septic peritonitis, it is difficult to make out whether the inflammation be diffused or circumscribed. In the latter case there would be a risk, in the performance of laparotomy, of



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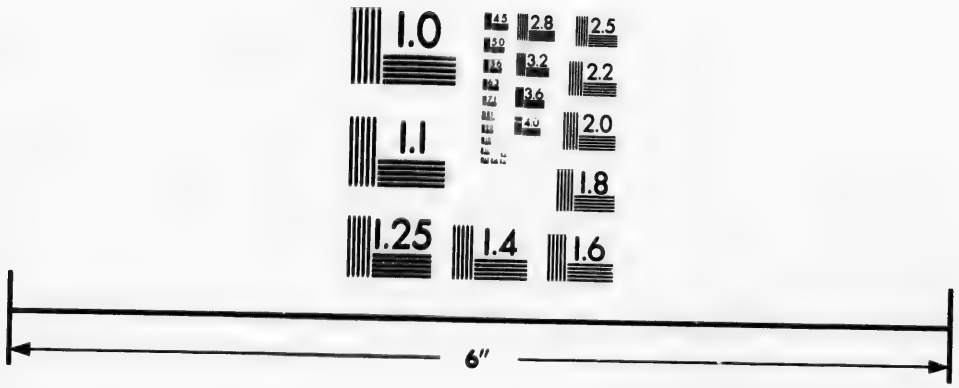

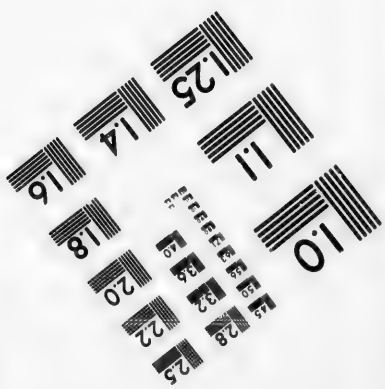


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breaking down the adhesions by which the infective material is confined. In acute peritonitis due to intestinal perforation, the diagnosis is not, as a rule, attended with any special difficulty. Acute peritonitis sets in with unmistakeable symptoms, and experience teaches that with expectant treatment death almost invariably ensues as a result of diffused inflammation of serous membrane. It is thought that by performing an early laparotomy in cases of this kind, and by washing out the peritoneal cavity and closing the wound in the intestine, many a life might be saved that otherwise would be doomed. Prof. Oberst has recorded a case, in which he operated, which commenced by strangulation of an old scrotal hernia. The patient was admitted into hospital on the fourth day, much collapsed and presenting symptoms of intense peritonitis. Herniotomy was at once performed, when it was found that the sac contained no intestine, but was distended with turbid and fætid fluid. The abdomen was then opened, and a considerable quantity of fætid fluid escaped; the intestines were found much distended and covered by a deposit of recent lymph which glued the coils together. After a long search a small orifice, from which exuded fæcal fluid, was found in a loop of intestine deeply secluded in the abdominal cavity. The intestine was completely divided at the seat of lesion, and the two ends fixed by sutures to the margin of the external wound to form an artificial anus. The cavity was washed out with a warm solution of salicylic acid, and the inflammatory lymph was scraped off from the intestines. Several drainage-tubes were introduced, and the wound closed by sutures. The patient recovered rapidly from the collapse, and did well for two weeks; afterwards he became weak, and died on the ninth week, the fatal result being hastened by a hypostatic pneumonia.—(*Lond. Med. Record*, Aug. 15, 1885.)

Milculicz's successful case of laparotomy for perforation has already been noticed in the Retrospect for June.

*The Operative Treatment of Intestinal Obstruction.*—At the recent meeting of the British Medical Association, a discussion was held on the above subject. (*Brit. Med. Jour.*, Aug. 24, '85.) Mr. F. Treves opened the discussion by a paper, in which he

said that the operative treatment of intestinal obstruction might be classed under three heads: 1, The treatment of acute obstruction. 2, The treatment of chronic obstruction. 3, The treatment of chronic cases that have become acute. He, however, limited his paper to a consideration of the acute form, and ascribed the symptoms to three anatomical conditions: 1, To a hernia—like strangulation of the bowel; 2, To volvulus of the sigmoid flexure; 3, To acute invagination.

Under *Hernia—like strangulation of the bowel*, Mr. Treves places strangulation by peritoneal bands of all kinds; strangulation by omental ligaments or cords; strangulation by Meckel's diverticulum or by an adherent appendix or Fallopian tube; and lastly, strangulation through slits and apertures. Under the last head is classed internal herniæ. The treatment he proposes is as follows: The patient should be put to bed and kept absolutely at rest. No food should be given, and thirst should be relieved by sucking ice or sipping hot tea. The intestines should be kept perfectly at rest by hypodermic injections of morphia, and hot applications may be used over the abdomen. The colon should be emptied by enemata, and when once the bowel is stilled by opium, thirst may be relieved by copious enemata of hot water without increasing the intestinal disturbance. The next step should be an attempt at relief of the obstruction by laparotomy. Mr. Treves advises that laparotomy be performed within twenty-four hours when possible, provided, of course, the diagnosis is clear, for the course of the malady is rapid, its average duration six days, and its termination is fatal. The surgeon's attention should be directed to the speedy relief of the dying intestine. Mr. Treves, although he thinks spontaneous cure is not impossible, says he has been unable to find any recorded case or museum specimen that affords an instance of it. He says laparotomy, in itself, is not a serious undertaking, and the high mortality of the operation is due to it being undertaken at too late a period. The same rule, he says, should be carried out in these cases as is strangulated hernia where taxis has failed. He condemns massage and the use of the aspirator as entirely empirical proceedings. With regard to the operation, he advocates an

incision in the median line, below the umbilicus, large enough to admit the entire hand at once. The operation should be done under the spray, with strict Listerian precautions. The intestines should be prevented from protruding by flat warm sponges. The cæcum should be first examined, and if it be found flaccid and empty, it may be assumed the obstruction is in the small intestines. The right iliac region should then be examined, and if the affected loop be not readily found, the collapsed coils below the obstruction should be searched for. These are generally found hanging in the pelvis; by passing them through the fingers the constriction can be reached without loss of time. The author strongly objects to the practice of allowing intestinal loops to protrude and then examining them in detail. He advises the placing a large warm carbolized sponge deep in the pelvic cavity, it saves much manipulation of the pelvic viscera and intestines by sponging. Should the bowels protrude, he thinks puncture should not be resorted to. When the obstruction has been found, small bands may be torn across and large ones divided between catgut ligatures. An appendix or diverticulum may be excised, and the bowel closed by Lembert's suture, so as to bring the serous surfaces in contact. If the bowel be of good color, it should be returned; but if gangrenous, should excised, and an artificial anus established. He condemns the immediate suture of the divided bowel for several reasons: it prolongs the operation, and it does not relieve the obstruction and distension completely. Again, it is difficult to define the limits of the gangrenous action, and, lastly, there is great mechanical difficulty in uniting a large distended bowel above with a shrunken, collapsed segment below. The abdominal wound should be closed in the usual way, and unless there is peritonitis no drainage-tubes are required. If there be peritonitis, the abdominal cavity should be washed out with a weak carbolized solution of a temperature of 98°F., and the sac should be drained. He condemns the after use of a supporting bandage as unnecessary, and likely to perpetuate the very condition it seeks to avoid.

In *acute volvulus of the sigmoid flexure*, the treatment should be rest and starvation; opium should be given and the rectum

emptied by enemata. These cases are not so hopeful as the foregoing. Laparotomy should be performed in the middle line, the gut punctured by a capillary trocar, and reduction attempted; if this fail, then the gut should be evacuated in the summit of the flexure and an artificial anus established.

In *acute intussusception*, if no benefit follows the treatment by opium, belladonna, starvation and rest in twelve hours, it will be expedient to attempt reduction by means of insufflation or forcible enemata; if this fails, laparotomy should be resorted to and the invagination reduced if possible, if not, the bowel should be resected and an artificial anus established.

Mr. J. Greig Smith, F.R.C.S. (Bristol), also read a paper on *The Operative Treatment of Acute Intestinal Obstruction*, which is published in the same number of the *British Medical Journal*. He agreed with the general principles which ought to guide us in the operative treatment of intestinal obstruction as laid down by Mr. Treves, but differed from him in two points of operative procedure. (1), As to the method of finding the cause of the obstruction, he considers that the best guide to the seat of obstruction is not manual exploration, but visual examination, assisted, if necessary, by extrusion of the bowel. (2), As to the treatment of the bowel after the obstructing cause has been removed. He is strongly of opinion that no case of operation for intestinal obstruction is properly concluded until the over-distended bowels are relieved of their contents. He would, in searching for the obstruction, in the first instance, ignore the cæcum, substitute the finger for the hand, and supplement both by sight. He would permit the bowel to extrude, and if this were any help to finding the obstruction, would encourage it to do so; he would do all this before he inserted his hand to grope for the cause. Mr. Smith considers the condemnation of extrusion of the gut in these cases as a remnant of the pre-abdominal era of surgery, when exposure of the peritoneum and extrusion of the gut was considered to be almost certain death. If, when extruded, the bowel be protected by warm carbolized sponges, it will come to no harm. He considers the search for the points of obstruction in an abdomen filled with distended intestines one

of the most difficult undertakings in surgery. On opening the abdomen, the presenting bowel should be keenly observed, and as the most dilated portion of the bowel rises to the surface there is a strong chance of its being near the abdominal opening, move the bowels up and down, to the right and to the left, and fix upon the most dilated and congested portion. Using this portion as a guide, and running the forefinger along one side of the mesentery, the seat of the obstruction will probably be met with; if the distended bowel is with difficulty kept in the abdomen, let it escape, as its escape will help us to find the cause of obstruction. With regard to the second objection, Mr. Greig Smith holds that the presence of an excess of intestinal contents is in itself a cause of obstruction, and mere drainage of the intestinal contents should be frequently successful in saving life, although the obstruction may not have been overcome. If drainage can be accomplished by incision and immediate suturing, all the better; if not, Mr. Smith thinks it our duty to establish for a short time an artificial anus.

Mr. Mayo Robson, F.R.C.S., read a paper at the same meeting on *The Treatment of Intestinal Obstruction* (*Brit. Med. Jour.*, Aug. 29, 1885). He said that in regard to intestinal obstruction exact diagnosis is often impossible. He divides cases as follows: (*a*) Cases of obstruction as a rule chronic, the obstruction being the prominent symptom, acute troubles only coming on at a later period; (*b*) Acute cases, which may be roughly divided into three classes: (1) those of internal strangulation, as intussusception, volvulus, bands, etc.; (2) enteritis or other cases of purely functional obstruction; (3) perforation attended with acute peritonitis. Mr. Robson went on to say that the post-mortem records of our large hospitals show us that in many cases surgical interference might have failed, whilst in others a timely laparotomy would have proved beneficial. The following conclusions are based on Mr. Robson's own experience, on post-mortem records, on recorded cases, and on cases which he mentions in his paper:

1. In chronic cases—that is, where obstruction is a prominent symptom—medical treatment, such as injection, belladonna, mas-

sage, galvanism, etc., will often relieve or cure ; or colotomy or laparotomy, or some other operation, will be so plainly indicated as to leave no doubt as to what should be done.

2. In acute symptoms supervening on chronic, medical treatment—*e.g.*, starvation, rest, opium—may still often bring about a cure ; but laparotomy, as a means of diagnosis and possibly of treatment, may be demanded.

3. In initially acute cases, delay is often as dangerous as it would be to wait for an external hernia to reduce itself by its own efforts. Laparotomy should be performed early (*a*) as a means of making a diagnosis ; (*b*) as removing the cause of strangulation, if such be discovered ; (*c*) as a means of giving relief, if no cause can be found, by opening the bowel above the point of obstruction and carefully suturing it to the surface.

These three papers are well worth reading in the original. I have merely given as full a synopsis as I had space for. With regard to the operation, surgeons are now convinced that it ought to be performed early, if only for purposes of diagnosis. As a rule, these cases are handed over to the surgeon by the attending physician at too late a period, simply because the diagnosis was not accurately made out and the fear that a useless operation would bring discredit on the medical attendants. The diagnosis is impossible to make in many cases, and difficult in all. It is very easy on paper to put the causes of acute obstruction under different heads and give the treatment of each, but in actual practice it is difficult to make out more than that there is obstruction with or without peritonitis. I have seen several post-mortems where death has occurred with symptoms of acute obstruction which had been caused by peritonitis ; others where the symptoms were not urgent till a few hours before death, and where operative interference would have been of no avail ; others, again, where the disease was chronic, though latent, and acute symptoms rapidly developed. The profession is not yet educated up to early operative interference, but the time is rapidly approaching when laparotomy will be undertaken for intestinal obstruction as readily as tracheotomy is for laryngeal diphtheria. The danger of the operation *per se* is not great,

and soon will be performed as a means of diagnosis in most cases and permanent relief in many. In obscure abdominal cases, it is better, as, I think, Mr. Lawson Tait has remarked, to "get inside and find out."

In the same number of the *British Medical Journal* is a paper by Mr. R. N. Pughe on a successful case of abdominal section for *Intestinal Obstruction caused by the Vermiform Appendix*. In this case the congested and distended bowel was easily found, and the constricting band, which was found to be an abnormal appendix, ligatured in two places and divided. The recovery was uninterrupted.

In the same journal is an interesting paper on *Enteroraphy, with a description of a new form of suture*, by E. S. Bishop, F.R.C.S. I have space merely to mention this paper for reference.

Mr. Mayo Robson also reports a case of *Enterectomy for Acute Intussusception* in the *Brit. Med. Jour.* for October 3rd. More than four feet of bowel was removed. The patient only lived a few hours, dying apparently from shock.

Dr. Joseph B. Heald (*Boston Med. & Surg. Journal*, Sept. 3rd, 1885,) reports a successful case of *Laparotomy for Intestinal Obstruction from Intussusception*, in a man 25 years old, operated on by Dr. John C. Irish. The symptoms had lasted three days, and were attributed to a fall. The abdomen was opened in the median line, but nothing could be learned by inspection, owing to extreme distension of intestines, so about 15 feet of the gut were carefully drawn out, when some resistance being felt, the hand was introduced and a piece of invaginated gut drawn out. The invagination was relieved and the extended intestines replaced without difficulty; as soon as the obstruction was relieved, the patient passed per rectum a quantity of thin fæces and a large amount of gas. During the manipulation of the intestines, and after, there was profound shock, but the patient rapidly recovered without a bad symptom, and was sitting up on the fourteenth day.

*Laparotomy as an Aid to Herniotomy.*—E. Hury Fenwick, F.R.C.S. (*Lancet*, Sept. 26, 1885), reports a case of left inguinal hernia which had become strangulated, and taxis failing, herni-

otomy was performed, but he failed to reduce the bowel, even after opening the sac. He then made a two-inch median incision into the abdomen, above the pubis, introduced the finger into the peritoneal cavity, and pulled back the extruded gut with ease. The patient, after several days, gradually sank and died. No explanation of the cause of death could be made out at the autopsy. The abdominal incision appeared to have no share in the fatal result.

*Colotomy with delayed opening of the Intestine.*—Mr. Davies Colley (*Lancet*, March 21, '85), at a meeting of the Clinical Society of London, read a paper on the above subject, based on three successful cases of left lumbar colotomy, in which the opening of the intestines had been delayed for one, four, and six days respectively. The object in dividing the operation into two stages was to allow the wound to heal before risk of contamination by bowel contents, and so prevent peritonitis, suppuration, etc. To prevent the protrusion of the bowel, Mr. Davies-Colley uses a clamp devised by himself.

Dr. Charles B. Kelsey, in an article on the *Limitations of Colotomy in Diseases of the Rectum* (*American Journal of the Med. Sciences*, Oct., '85), concludes a valuable and interesting paper by giving the following indications for colotomy:

1. In congenital malformations of the rectum or anus in children, in which a tentative operation in the perineum has failed to reach the rectal pouch.

2. In intestino-vesical fistulæ.

3. In tumors occluding the rectum, which cannot be relieved by any other means—as dilatation, division, hot water, or electrolysis.

4. In non-cancerous, simple, or specific stricture and ulceration of the rectum (with or without fistulæ), where the disease cannot be relieved by proctotomy or dilatation.

5. In cancer, where the disease can neither be removed nor the passage re-established, and where death is probable from obstruction,—except in cases where the immediate dangers of the operation more than counterbalance any good likely to be derived from it.

6. In volvulus or intussusception of the colon or sigmoid flexure, where reduction by aid of laparotomy has been found impossible.

*Hip-Joint Disease and its Early Treatment.*—Mr. John Croft (*Lancet*, June 6th, 1885), in a paper on the above subject, after having briefly commented on the four allied subjects of (1) the often tubercular nature of this chronic disease, (2) the frequency of the occurrence of necrosis and sequestra in the later stages of it, (3) the less frequent, but not uncommon, result of shortening of the limb found in cases of the first stage of the disease, and (4) the too much overlooked symptoms of reflex muscular spasm and rigidity, went on to speak of the early treatment. This consists in absolute physiological rest, which is ensured by recumbent posture, a long, suitable splint, and a certain amount of extension or traction on the limb. Weight only sufficient to steady the limb should be employed. He is not in favor of local applications, as irritants, setons, issues and the like. Leeching he has found useful in relieving acute sensitiveness and pain in acute attacks of inflammation. Poultices and soothing fomentations are occasionally useful, but their habitual use is not desirable. The whole limb should be kept warm and scrupulously clean by washing, and it should be systematically rubbed to maintain the suppleness of the muscles and joints below the hip.

The splint employed by Mr. Croft is a modification of Thomas's back splint. He prefers the parallel outside splints six inches longer than the limb, with a chest girdle. A stirrup is applied to the foot and leg, and this stirrup is fixed to the end of the splint by a strong elastic band or cord. Counter extension is provided for by the pelvic girdle, to which the ends of a perineal band are attached.

*Excision of the Hip.*—Dr. Wm. Alexander of Liverpool, at the close of an interesting paper on excision of the hip, summarises as follows:

1. That hip disease should, in the earlier stages, be treated by that absolute and perfect rest obtained by means of Thomas's splint.

2. That this treatment, thoroughly and persistently carried out for a long period, will cure a large percentage of joint diseases.

3. Unfortunately, this treatment cannot and is not persistently carried out amongst the poor. . . .

4. Many of these patients could be saved by excising the joint when a decided second stage of hip disease had been reached. Excision is best performed by severing the femur above the trochanter, clearing out the acetabulum, and maintaining the opposing bones so far apart that their surfaces can resume a healthy condition and the aperture be filled up with fibrous tissue. By this means an excellent false joint is formed, or, if the adhesions become too firm, a good stiff joint.

5. That the advent of the stage of this disease suitable for excision is indicated by repeated formations of abscesses around the joints. . . . .

6. That when the supra-trochanteric mode of excision cannot be performed with any chance of success, then the alternative is either continued expectancy or amputation.

7. That it is a great mistake to imagine that all softened bone or infiltrated tissue should be cleared away by the operator. All he has got to do is to clear a space, where the operations of nature, in dealing with diseased or disabled tissues, can be carried out as easily and expeditious as possible. The operator should remove all manifestly dead tissue, but the doubtful should be left alone to be dealt with by nature.—(*Liverpool Medico-Chirurgical Journal*, July 1885, quoted in *Medical News*, 22nd August, 1885.)

*Spina Bifida.*—The report of the committee on spina bifida was presented to the Clinical Society of London by Mr. R. W. Parker. The following portion treats of the *Clinical course and Treatment of Spina Bifida.* (*Lancet*, May 30th, 1885.) As regarded the natural history of the deformity, the Registrar-General's report for 1882 showed 649 deaths from spina bifida, of which 612 died under one year old. The committee held that, though a certain number of these deaths were due to local causes, rupture of the sac, draining away of the cerebro-spinal fluid, and subsequent septic meningitis, yet in a large proportion of cases

death ensued from the marasmus and general defective nutrition so frequently associated with the deformity, and which could not be remedied by local or other treatment. The tables next dealt with the treatment by injection with simple solutions of iodine, and showed a considerable amount of success. Then ligature of the sac was considered, and here, again, good results were obtained. Excision likewise had a considerable proportion of success. The plan of repeated tapping and pressure gave the least successful results of any. The injection of Morton's fluid showed a percentage success of between 50 and 60. The high mortality was thought to be due largely to the treatment having been adopted in unsuitable cases on account of its simplicity and supposed safety. In spite of the favorable results of ligature and excision of the tumor, as shown in the tables, the committee felt themselves compelled to report against these methods of treatment. There was reason to think that the reported cases might be misleading, owing to some cases of failure not being reported, while all the successes being regarded as surgical triumphs were almost certain to have been recorded. Moreover, it seemed probable that a careful selection of cases had been made. The committee, therefore, advocated the plan of treatment by injection of Morton's fluid.

[Dr. J. Morton's fluid is made by dissolving 10 grs. of iodine and 30 grs. of iodide of potassium in one ounce of glycerine. Half a drachm is injected after the withdrawal of a small quantity of the spinal fluid.]

*Treatment of Cephalocele and Spina Bifida.*—Prof. Schatz of Rostock, in a paper in the *Berlin Klin. Wochensch.*, No. 28, 1885, and quoted in *Medical Times*, says that of 105 cases of cephalocele, 59 were occipital and 46 frontal in position. Of the former, 24 were left untreated and only 3 recovered; 35 were operated upon by incision, injection of iodine, or ligature, with six recoveries. Of the frontal encephaloceles, 6 out of 32 survived without treatment, and only 3 out of 14 after operation. Prof. Lorimer is quoted as stating that no operative interference should be attempted when it can be clearly shown that a communication exists between the sac and the vertebral canal. Prof.

Schatz considers the operation only justifiable when there is no such communication, and when the tumor is covered with healthy skin, is fully transparent, and not painful. In other cases, he would endeavor to secure isolation of the tumor from the arachnoid cavity by means of graduated constriction or pressure calculated to set up a process of plastic adhesion, when applied to the base or pedicle (if there be one) of the tumor. He relates particulars of three cases in which he operated by emptying and removing the sac, the base or pedicle of which was firmly secured by means of a long clamp. All the cases were severe. Two recovered and one, a case of spina bifida, died. Compression of the sac by clamps may be found of use in those cases where there is a pedicle and the case is a simple one.

*Wrist Ganglion.*—Dr. R. Falkson (*Archiv für Klin Chir.*, Bd. 32, Hft. I, 1885) gives 15 cases of total extirpation of wrist ganglions. Removed with antiseptic precautions, perfect preservation of function was secured, and primary union took place in all but two cases. These ganglia often dip under the carpal ligament, and in 13 of Dr. Falkson's cases extended to the joint capsule, but did not communicate with the joint. Volar ganglia always occur on the radial side, and in extirpating them it is sometimes necessary to tie the radial.—(*Quoted in Annals of Surgery*, Oct. 1885.)

*Palmar Ganglion.*—The treatment of palmar ganglion has never been very satisfactory. It is an affection which interferes considerably with the function of the hand, and at times renders it completely useless. The old forms of treatment by pressure, counter irritation and tapping, though occasionally successful, cannot be relied on. Injections and incision of the sac have been frequently followed by failure, and occasionally by fatal septicæmia. Again, if there is free suppuration, the tendons become adherent and the hand is rendered useless. These ganglia nearly always contain "melon-seed bodies"; when these are present injection is useless. In an interesting editorial in the *Lancet* for June 27th, 1885, the writer advises early operation, free evacuation of the cyst, and removal of the "melon-seed bodies." For this purpose a free incision is necessary over

the most prominent part of the swelling, above the annular ligament; pressure should be made in the palm to force out the fluid and as many of the loose bodies as will escape; then a sharp spoon should be introduced, and the whole cavity scraped to detach any "bodies" which are fixed to the synovial membrane. This is better than attempting to wash out these bodies or trying to remove them, as Volkmann does, by passing in a drainage-tube and drawing it sharply to and fro. After having scraped out the sac, a solution of zinc chloride, 40 grs. to the ounce, is applied to the whole interior of the sac to modify the nutrition of the lining and prevent a re-collection of fluid. The operation should be done with strict antiseptic precautions, as by this means union by first intention is obtained, and there is no danger of septic suppuration. A tube should be introduced, not made to come out in the palm, as suggested by some surgeons; this is unnecessary, as perfect drainage may be obtained by fixing the hand in a splint and placing a compress on the palm. How the cure is effected is not clearly understood—granulation or direct adhesion, or is it analogous to the cure of hydrocele by injection? if so, it has no tendency to recur, as hydrocele has.

*Transplantation of large pieces of Skin in recent Wounds.*—Esmarch brought forward, at the German Congress of Surgeons, some pictures to illustrate the importance of such treatment. One was a case of lupus of the nose; another, a facial mole. The success in both cases was complete; the flaps united by first intention, and the scar was quite insignificant. The conditions necessary for success are that all subcutaneous tissues should be cut away and the flaps laid flat on the raw surface, where they should be firmly secured by a few stitches and a bandage.—(*Verhand. der Deutschen Gesell. f. Chir.*, quoted in *Practitioner*, October, 1885.)

There is an elaborate article in Langenbeck's *Archiv f. Chir.*, Bd. 130, Hft. III, 1884, by Dr. H. Maas of Würzburg, on the healing of large raw surfaces by the application of large skin flaps from distant parts of the body. For instance, suppose there was a large raw surface on one leg; a piece of skin is partially dissected from the other, placed over the raw surface,

and kept there by sutures, and the two legs would be immovably fixed upon one another by plaster bandages. When the flap has taken, it is cut away from the sound leg and allowed to receive its nourishment entirely from its new attachment. I saw at the New York Hospital, eighteen months ago, the whole back of the hand covered in this way by a flap from the chest. The surgeon was Dr. W. T. Bull.

*Treatment of Ringworm by Chrysarobin.*—Dr. Alexander (*Jour. of Cutaneous and Venereal Diseases*, Vol. III, No. 2) found the most satisfactory results follow in ringworm when a paint of chrysophanic acid was used. The preparation is made by adding one part of chrysophanic acid to ten of liquor guttaperchæ, and is used as follows: The hair of the head is closely cut or shaven, the scalp thoroughly cleansed, and epilation by forceps of diseased hairs on the spots. The pigment should now be applied to the diseased spots with a stout brush. Nothing more is done till the growing hairs push their way through the paint, when the application is renewed. This is done about once or twice a week. In many of the cases thus treated, even without epilation, the discase was cured by one or two applications.

*Treatment of Nœvus by Ethylate of Sodium.*—Mr. S. Welch (*Brit. Med. Jour.*, Aug. 1885) says that he finds ethylate of sodium very efficacious in the treatment of nævus. Two coatings of the ethylate are painted over the nævus on two consecutive days, care being taken to protect the surrounding skin. In all instances of superficial nævi, this treatment is completely successful. When the nævus affects the subcutaneous tissues, a second and even a third application of the remedy is required.

*The Way to Prepare Sponges.*—The following is Mr. Lawson Tait's method of preparing sponges, and but one person is entrusted to do this: New sponges are first put into a large quantity of water, with sufficient muriatic acid to make the water taste disagreeably acid. They remain in this mixture until all effervescence has ceased, and all the chalky matter is removed. For this purpose it may be necessary to renew the acid several times. The sponges are afterwards carefully and thoroughly washed to free them from every rough particle. After being

used at an operation, they are first washed free of blood and then put into a deep jar and covered with soda and water (one pound of soda to twelve sponges.) They are left in this about twenty-four hours, and then they are washed perfectly free from every trace of soda. This takes several hours' hard work, using hot water, squeezing the sponges in and out of the water, and changing the water constantly; allowing them to soak for a few hours in very hot water greatly assists in the cleansing. When quite clean, they are put in a jar of fresh water containing about 1 per cent. of carbolic acid, and after being in this for 24 hours, are squeezed quite dry and tied up in a white cotton bag, in which they are left hanging from the kitchen ceiling (being the dryest place in the house) till they are wanted.—(*Amer. Jour. of Obstet.*, quoted in *Pacific Med. & Surg. Jour.*, Oct. 1885.)

*Bichloride of Mercury as an Antiseptic.*—According to Prof. J. Mikulicz (*Archiv f. Klin. Chir.*, 1884), for the prophylactic portion of wound-antisepsis—disinfection of sponges, tubes, sutures, operator's hands, and the part to be operated on—sublimate is incomparable, its value being increased by the rapidity of its action. It is not, however, suitable for metal instruments, since they are attacked by it. During and after completion of an operation, on the other hand, we have to deal with albuminous secretions, which form insoluble combinations with mercury, and for this the sublimate does not answer so well as carbolic acid. Mikulicz found that solutions of 1–1000 retarded and diminished the development of micro-organisms; weaker solutions not perceptibly, while only a strength of 1–400 or 500 completely prevented their appearing. Comparative tests showed that it only needed double this strength of carbolic acid to give as good results. Since the excretion of pathogenic micro-organisms usually occurs in connection with albuminous materials, sublimate is probably less trustworthy for such hygienic disinfection than carbolic acid. . . . Mercury albuminate itself is, however, not entirely inactive, and does not putrify readily. There are, therefore, good reasons for considering carbolic acid a far more constant and trustworthy wound antiseptic than sublimate, although the latter is the stronger agent. If

sublimate is used in preparing for an operation, and full precautions be taken, then even pure water may answer for wound irrigation. In septic puerperal conditions, it is questionable whether sublimate should be used, since either strong solutions or frequent irrigation may prove toxic. As a wound-dressing, iodoform, thymol, etc., are not inferior to bichloride, and less dangerous. Again, sublimate, contrary to general impression, is volatile. . . . Finally, sublimate may be absorbed in fatally toxic amount. Its local caustic action—principally seen under sublimate dressings—has repeatedly caused eczema, erythema, urticaria, etc. Not a few cases have ended fatally. Mikulicz gives six cases, and says the first case of amputation of the breast, in which he used sublimate dressing of sawdust, containing 1 per cent. of sublimate, had a fatal termination.—(*Annals of Surgery*, July 1885.)

*Surgical Treatment of Cysts of the Pancreas.*—Dr. N. Senn (*Amer. Jour. of the Med. Sciences*, July 1885) has an exhaustive and able paper on the above subject. After giving a full report of a retention cyst of the pancreas recently under his care, which was successfully treated by laparotomy, he summarises in a compact form the clinical history of similar cases, and draws conclusions founded on his own and other cases as to the proper method of treatment. At the end of his paper he sums up as follows:—1, Cysts of the pancreas are true retention cysts. 2, Cylindrical contraction or obliteration of the common duct or its branches and impacted calculi are the most frequent causes of cysts of the pancreas. 3, A positive diagnosis of a cyst of pancreas is impossible; a probable diagnosis between it and some other kind of cyst amenable to the same surgical treatment is adequate for all practical purposes. 4, The formation of a pancreatic fistula under antiseptic precautions recommends itself as the safest and most expedient operation in the treatment of cysts of the pancreas.

*Treatment of Lupus.*—The method of interstitial cauterization by the aid of the thermo- or electro-cautery suits a great number of cases of lupus. Old, very extensive cases, with destruction effected, are, indeed, refractory, in a measure, to all medication.

Here we can have recourse to suppurative dermatitis in the manner indicated by Schwimmer. The lupus surfaces are painted over with a saturated solution of pyrogallic acid in ether, or receive a pulverization of this ethereal solution. In either case, the surface becomes covered immediately with a white and adherent layer of pure pyrogallic acid, which is now at once covered over with a layer of traumaticine. Afterwards, an irritation analogous to that of a strong vesicant is produced on the diseased tissues, and at the margin a little swelling without redness. The resulting cicatrix is smooth, and the paintings are renewed until every deposit of lupus has disappeared from the tissues. This method suits lupus vulgaris best.—(*Annales de Dermatologie et de Syphiligraphie*, Janvier 1885, quoted in *Edinburgh Med. Journal*, May 1885.)

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